

REFERENCES FOR THE AGRICULTURAL INSTRUCTOR

Major Thesis

Presented for the Degree of Master of Science

by

G. V. Nelson, B. S. in Ed.

Virginia Polytechnic Institute

Approved by:

"There are two kinds of knowledge; that which is stored away in your own brain, and that which you can lay your hands on when you want it. And of the two the first is to the latter as a single grain of wheat to the wheat of the world".

Jeff. M. Demid

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ABBREVIATIONS

F. B.	Farmers' Bulletins
Dept. B.	Department Bulletins
Dept. Cir.	Department Circulars
Exp.	Agricultural Experiment Station
Ext.	Extension Division
B.	Bulletin
p.	Page
Fed.	Federal
Mont.	Montgomery
Mos.	Mosier
H. & W.	Hutcheson & Wolfe
I. H. C.	International Harvester Co.
H. & M.	Henry & Morrison
Crops - Smith	Farm Crops
L. S.-P.-Smith	Live Stock and Poultry
Hort.-Smith	Horticulture
Y. & N.	Yapp & Nevins
R. & B.	Rice and Botsford.
Am.	American
P. S. & C.	Pearl Surface & Curles
B. & S.	Bray and Schmidt
L. & P.	Lawson & Putney
Wash.	Washburn
Robb & B.	Robb and Behrends
Mis. Cir.	Miscellaneous Circular, U. S. D. A.

REFERENCES AND THEIR USE IN TEACHING VOCATIONAL AGRICULTURE

The instruction in Vocational Agriculture has changed from the general to the specific. Therefore the textbook has been very nearly discarded in teaching vocational agriculture in Virginia. Dependence has been placed on more specific reference books, bulletins, and data from local farm surveys. The instructor sets out to teach a particular farm job or problem demanded by community agriculture and soon find that the shortage of good reference material is his most serious problem. The next question is what is the best reference material for teaching a particular farm job and where can this material be secured. Most departments have a sufficient quantity, in fact some departments have too much.

Because of the writer's personal experience he realized this need. His hope has been to so organize and compile a list of reference material so that an instructor could readily locate references for any job and feel fairly assured that the references were good ones.

Objectives.

The objectives of this study are as follows:

1. To prepare a list of the most usable references by jobs for each enterprise of importance which is taught in the state.
2. To outline the proper use of reference, ways of securing them, and the best method and facilities for their filing.

Procedure.

A list of all important enterprises which are included in the four year curricula of the department of vocational agriculture in

Virginia was formulated from a study of the annual reports of the vocational department, which are submitted to the State Supervisor. This list of enterprises analyzed into farm jobs. This analysis was made by conferring with the Teacher Training Staff, Specialist in the various departments of the college, and by studying various analyses which have been made in this and other states.

After each enterprise had been analyzed into jobs, the references for each job were located in the College Library, Blacksburg High School Library, and in the collections of the agricultural departments of V. P. I.

In this list of references Virginia publications have been given preference, because they meet the conditions found in Virginia and can be secured more readily and in sufficient numbers for teaching purposes. Extension Bulletins are published for the use of the farmer and give good direction and instruction in modern agriculture. Experiment Station Bulletins are reports of experiments published by the experiment station; generally containing a good summary. The U. S. Department of Agriculture Publications are written in five series of bulletins and circulars; Farmers' bulletins, which are written in non-technical style, contain recommendations and directions for procedure in modern agriculture; Department bulletins, which are technical discussions primarily of the results of Experimental work of the Department. They generally contain a list of good reference material. Department Circulars carry less technical and more informational contributions but designed for scientific use. The mailing

lists are very limited. Miscellaneous Circulars which are of a nature that do not fall in the other two classifications or which are of other than regular octavo size; Statistical Bulletins and yearbooks separates are reprints of articles appearing in the yearbooks of the department and could be used a lot more than they are.

Other sources of information that have been considered in this publication are industrial corporations manufacturing or distributing feed, seed, and fertilizer; breeders' associations, meat packers and farm implement and supply companies.

This is only a partial list of references prepared for the agricultural instructors of Virginia. No attempt has been made to make it complete, since there are one hundred and eighty thousand volumes and over a half million index cards in the U. S. Department of Agriculture Library, so you can at once see the preponderous task of such an undertaking.

EXPLANATION

The references are divided into enterprises such as corn, hogs, poultry and etc. On the first page of each enterprise will be given a list of jobs for that enterprise. On the second page will be given a general list and a special list of reference books for that particular enterprise. The general list will be books that cover the subject in general. The special list will be books that only treat certain phases of the job. The references for each job will be grouped into four divisions:

A. will designate the best references for the high school student. The references are largely Farmers' Bulletins, Virginia Experiment Station and Extension Division Publications and certain valuable books. Both the bulletins and books should be secured in sets.

B. will designate references for the instructor. The references are largely books, Department Bulletins, Experiment Station Publications, and in general too technical in nature for student use.

C. will designate good supplementary references for either student or instructor. These will be reference bulletins or books that deal with a certain phase of the job, and are difficult to secure in more than one copy. After the material may be as good or better than that listed under A.

D. will designate illustrative material that can be used in teaching that specific job.

For example:

Enterprise - Corn

Job No. 17 - Cutting corn for silo.

- A. F. B. 578. (Preferable for student).
- B. H. & W., p. 169-171. (Preferable for instructor).
- C. F. B. 825, Pit silos. (Good supplementary material).
- D. Corn Production - American Manufacturers Asso. of Products of Corn.
208 South LaSalle St., Chicago, Illinois.
(Illustrative material).

On the second page of each enterprise the reference books are listed. On the left side of the page will be given the key used in referring to the book. Then the title of the book followed by author. Generally the author's name or abbreviation for his name is used as key. In case of joint authorship the first letter of each name will be used. On the next line and just below will be given the publisher. The addresses of the publishers are given on the last page of this study.

If the kind of bulletin is not indicated, it is the same as the preceding one.

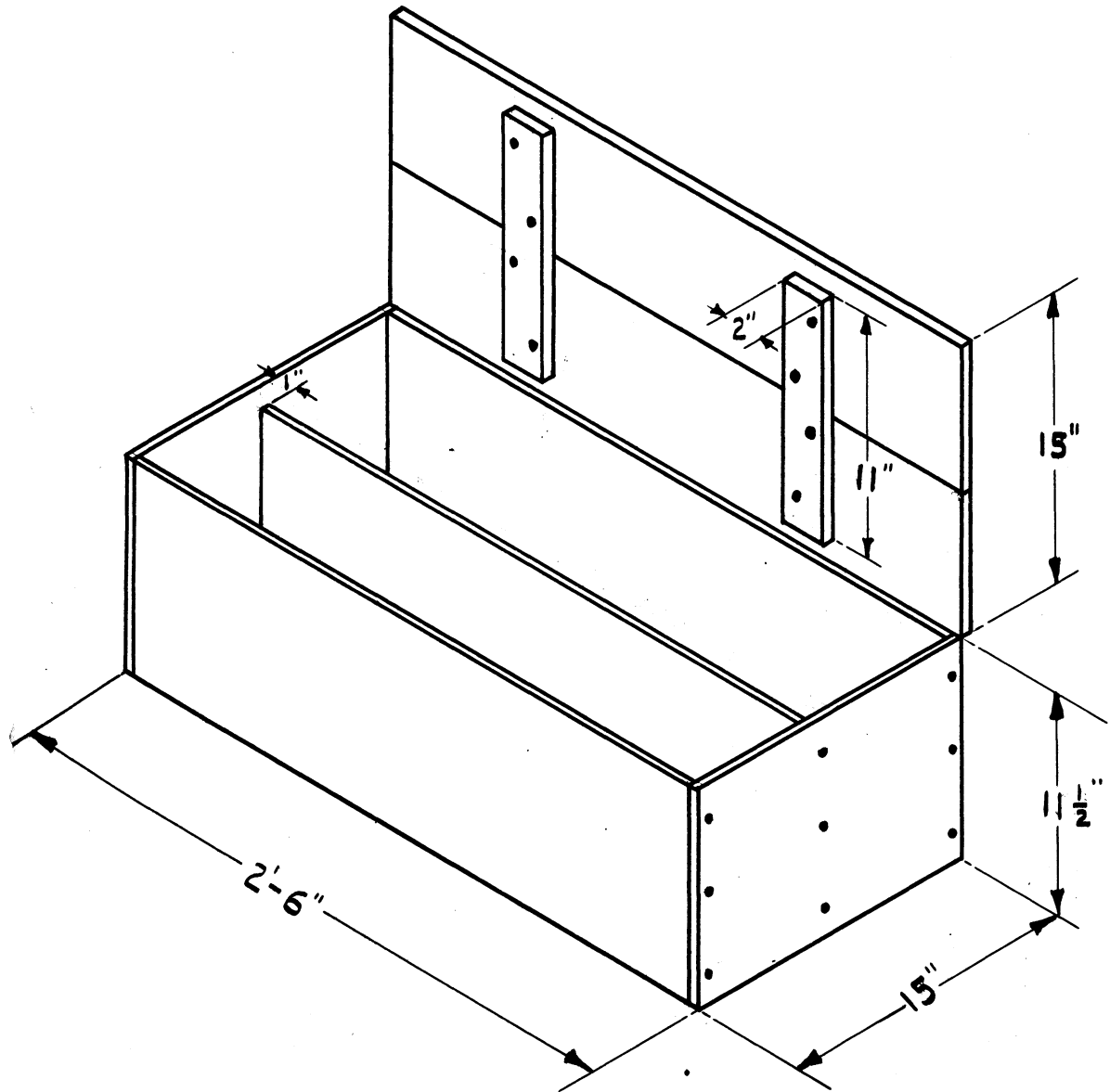
Notations are made of the particular outstanding references, but in most cases the name of the job will indicate the nature of the reference and its specific use.

Filing References

There are several good systems of filing and storing references. The simplest and most economical, and at the same time dust-proof and rat proof, is the box system. The bulletins are easily accessible and adjusted for single copies or sets.

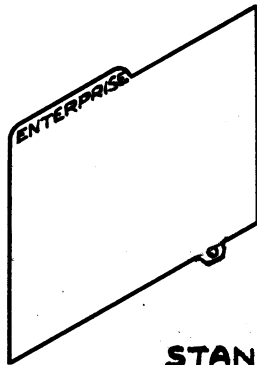
These boxes are thirty inches long, thirteen inches wide on the inside and ten inches deep. A partition placed in the center of the box and running lengthwise divides it in two sections. Each section is just a little wider than the bulletins. Then colored cardboard is cut ten inches high and used to separate each enterprise. The name of the enterprise is printed at the top so it can be seen above the bulletins, then each job in the enterprise is separated with a white card board with the name and number of the bulletin, just behind it. In the back of the last job of each enterprise is a card for miscellaneous bulletins. The top is kept closed when not in use.

This system gives a systematic arrangement that is convenient and easily understood by the students.

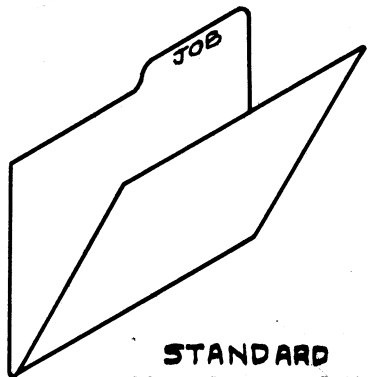


Filing Teaching Materials

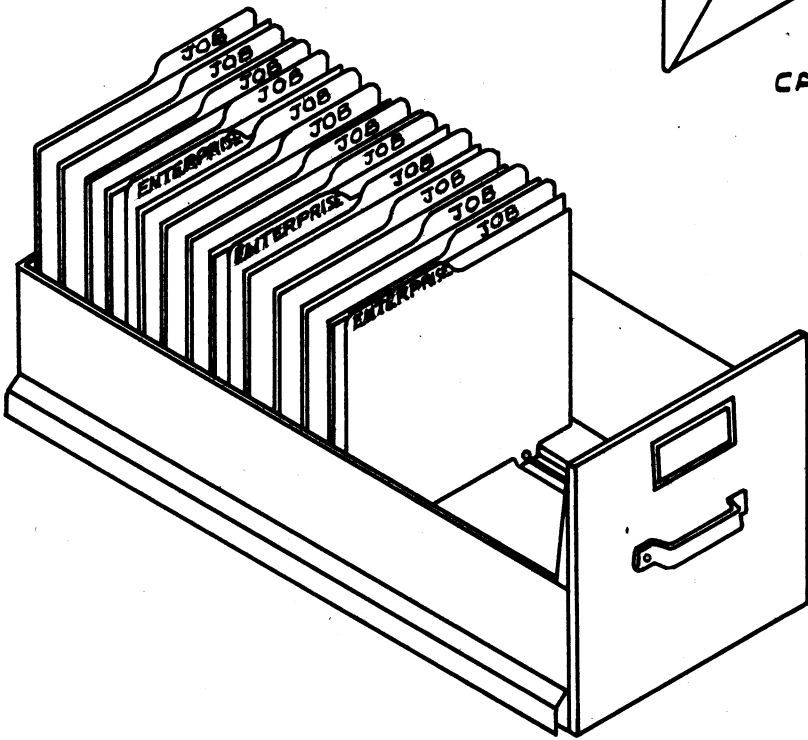
According to the standard Virginia system of filing, all teaching materials are filed in drawer number three. This consists of cardboard guides which are fastened to the bottom of the drawer by a small steel rod which runs through a hole in the bottom of the guide. These guides are used to separate the enterprises. Each enterprise has a manilla folder for each job in that enterprise. All teaching materials for that job such as lesson plans, analysis, illustrative material, and news clippings are kept in that folder. Each sheet is labelled in the left hand corner according to enterprise and job so it can always be replaced in its proper folder.



**STANDARD
MANILLA GUIDES**



**STANDARD
CARDBOARD FOLDERS**



HOW TO SECURE REFERENCES

There are many sources of references. Some of the more important ones are;- Local data, books, United States Department of Agriculture publications, State publications, magazines and Industrial publications.

One's locality is the most prolific source of agricultural information and will be explained later. Books are very expensive when bought in sets and are seldom adapted to local conditions. For this reason, only a few sets of four to eight copies of the more valuable ones are recommended for the library of the vocational department. This is to be supplemented by a few good publications of a supplementary nature, of particular use to the instructor and too costly to admit of more than one copy. Magazines and their use will also be explained later.

Our chief source of references are bulletins, most of which are furnished by our Government. State publications are free and may be secured as follows: By writing to the Experiment Station for Experiment Station bulletins; to the Extension Division for international bulletins; to the Virginia Department of Agriculture and Immigration, Richmond, Virginia, and to the Virginia Health Department, Richmond, Virginia. These bulletins may be secured through the county demonstration agents. Some of the United States Department of Agriculture bulletins may be secured through the same source. Industrial publications may be had by writing direct to the Industrial concern.

Securing Government Publications.

The Superintendent of Documents, Washington, D. C., issues a monthly catalog of United States public documents. This is the most complete, available and up-to-date report on government publications. It lists the publications of all departments: Agriculture, Commerce, Interior (including Bureau of Education), Justice, Labor, State, Postoffice, and all others. Subscription price to individuals is fifty cents a year. It is free to a limited number of schools.

The Superintendent of Documents also issues at irregular intervals announcements called price lists. There are listed and described all the government publications available in the field to which that particular price list is devoted. The cost of the publication is given. The majority are either five or ten cents a copy. The price lists are sent free on application.

Some of the most important of the price lists are:

Price list No. 16 - Farmers' bulletins.
United States Department of Agriculture.
Supt. of Documents.

Price list No. 31 - Education - Supt. of Documents.

- " " " 38 - Animal Husbandry - Supt. of Documents.
- " " " 41 - Insects - Supt. of Documents.
- " " " 44 - Plants - Supt. of Documents.
- " " " 46 - Soils and Fertilizers - Supt. of Documents.
- " " " 53 - Maps - Supt. of Documents.
- " " " 68 - Farm Management - Supt. of Documents.
- " " " 70 - Census Publication - Supt. of Documents.
- " " " 71 - Childrens Bureau - Supt. of Documents.

These special lists are valuable aids in selecting appropriate references and materials.

There are several ways of securing Government Publications free. They are as follows:

By ordering from the Bureau of Information or Publication, Washington, D. C.

By ordering from the State Agricultural Extension Division, Blacksburg, Virginia.

By ordering from your Representative in Congress, who should be addressed as follows:

The Hon. Clifton A. Woodrum,

% The House of Representatives,

Washington, D. C.

By getting your County Demonstration Agents to order them for you.

Valuable books such as Year Book, Hand Book and books on cattle and horse diseases may be had by writing your Representative in Congress. Illustrative material may also be secured free by writing to the different departments.

With this valuable free material available, there is no reason why a student who is taking Agriculture should not have a Home Library.

Postcard announcements of "new publications" are also sent out to those who request that their names be placed on the circulation list.

Special classified list of bulletins, references, books and illustrative material prepared for agricultural teachers are available from the United States Department of Agriculture, addressing the Office of Agricultural Instruction, Washington, D. C.

All free publications are limited. So many are allotted to each of the above mentioned sources and when this supply is exhausted, they may then be obtained at the price indicated in the price lists (which is as a rule five, ten and fifteen cents) from the Superintendent of Documents, Government Printing Office, Washington, D. C., to whom both postal orders and remittance should be addressed. That office officially is not connected with the Department of Agriculture. Postage stamps, mutilated coins, foreign money and uncertified checks will not be accepted. For the convenience of the general public, coupons that are good until used in exchange for government publications sold by the Superintendent of Documents may be purchased from his office in sets of twenty for one dollar. Address order to Superintendent of Documents, Government Printing Office, Washington, D. C. No publications are sold by the Department of Agriculture.

Sometimes a letter to the author of the publication is very effective.

Other Sources and Suggestions.

Besides the government there are the State Agricultural Experiment Stations and the State Extension Division which all publish lists of available bulletins and publications. A directory of these is found in the rear of this study. Some states cannot send even single copies to residents outside of their state. Only those should be requested which are pretty certain of being needed. Certain experiment stations and extension divisions are recognized as being peculiarly good authorities along certain lines. These should be considered. The similarity of the agriculture of the states should also be kept in mind. One can usually purchase such publications at a normal fee when the state cannot send them.

In "Farmer Training" by John Wheeler, is found a current list of references.

Securing Duplicate Sets

Individual copies can be secured more easily than sets. Only those should be secured in sets when they are actually necessary to the enterprise called for in the program for agricultural instruction. To secure the bulletins in sets, more effort is necessary. If one request does not secure them, then another request should be made or other means used. Enlist the services of prominent persons such as superintendent of schools, and ~~and~~ students can also order bulletins individually for the instructor. The fact is that some instructors do secure the bulletins they wish while others do not. The reason is that they are not satisfied with one attempt. Any one can get

bulletins if they wish them badly enough and begin the attempt early enough to secure for the time of need.

Teachers should avoid requesting a large list of publications on different topics at any one time, or of publications the use of which is to be distributed over a long period of school work. It is the policy of the different agencies to limit the distribution of publications to actual present needs as nearly as possible, so that the funds available for the purpose of publications can be made to benefit the largest possible number of real users. A few bulletins carefully studied by the teacher and the class, or assigned to certain members for individual reports, are of much greater service than a hundred forgotten on the shelves at home or in the school library. It must also be remembered that agricultural instructors are not to function in the distribution of bulletins. Only those for permanent class use should be secured. This does not prevent the encouraging of students of any classes from securing them individually.

The agricultural instructor should help the United States Department of Agriculture by giving his students good instruction in ordering bulletins. Make sure the listing is clear and methodical and that they do not request from one department or bureau publications issued by another department or bureau.

Every instructor should annually check over bulletin reference lists which can be secured from all institutions distributing such literature. Some new bulletins may be secured and some of the old

ones may be replaced by better information. This is one of the
summer jobs to be done annually.

Use of References.

One of the outstanding characteristics of poor instruction is the giving out of information by the instructor. Good teaching is characterized by students securing their own information.

In order to do this they must have the proper reference. It is the instructors job to have his references on hand ahead of time so he can use them in planning his lessons. It is almost impossible to plan a good lesson without references. Sometimes a lesson plan has to be changed or disregarded because of lack of good references.

References are used as teaching material in presenting the new or unknown and not as a mere list of facts. Just assigning so many pages to read on a certain subject is not making the proper use of references. The reference should be studied by the instructor beforehand and only those parts used that are needed for the job or problem.

References may be divided into two groups; books and bulletins as we generally think of references, and local data which is often over-looked. Supervised practice records and local surveys sometimes make the best reference. Other local references are; students knowledge, individual farmers, local agricultural institutions, mills, hardware stores, cattle buyers, bankers, etc. References are used most extensively in the presentation step, but sometimes special experimental data which must be secured from references or from surveys, made by instructor or student, also reference material of locality such as nurserys, mills, hardware

marketing associations, etc. are used in the preparation step.

When the instructor has reached the limit of the knowledge and experience common to the group he is then through with his preparation step and ready to present the new and complete the solution of the problem.

The next problem is to make the best use of references and other authorities needed to complete the solution. This calls for an assignment carefully planned in advance.

If the references are to be used in sets the assignment may be placed on the board before the class begins or when making the assignment previous to any study of materials.

Unanswered questions and lacking information should be listed in preparation step and attention called to these in the assignment. Therefore, the final assignment must be clear and complete in its instruction so that additional explanation will not be needed. This only adds delay and confusion.

The instructor should make sure that the solution to the operation set up in the preparation step is answered in the reference.

When different references are used for each student the problem becomes more difficult. Definite instruction should be written on a slip of paper and clipped to each reference, or they may be written on the board before class. Another way for advance students would be to have them follow the index.

The references to be used for the day should be assembled by the instructor before the class begins and placed on his desk, then at the beginning of supervised study they are distributed by

a student and at the close of the period they are collected by a student and returned to the instructors desk. The instructor should make sure that they are all there and none left in the desks of the pupils. After the class has been dismissed, the bulletins are filed in their proper place by the instructor.

The instructor should set a good example for his pupils by taking good care of the bulletins he uses and not have them scattered on his desk or out of place. He should not mark, misuse or mutilate in any way. If the instructor is careless with his bulletins he can't expect his students to be otherwise. He should emphasize the fact that these publications cost the Government thousands of dollars and because they are free is no reason for their being handled carelessly.

During supervised study the instructor passes from one to another seeing that the important facts are being recognized and assembled. Each student is held accountable for the information found in reference studies and should make note on same.

Each student should be encouraged to have a home library consisting of books, bulletins and magazines. One of the most serious problems met by the farmer has been the lack of some system whereby a ready and instant reference to printed information of all sorts could be always at hand. Sometimes magazines are preserved in large numbers just to save a few good articles. This method soon becomes cumbersome and the valuable bits of information soon become hopelessly buried in a mass of waste paper which is eventually burned.

These articles should be clipped and filed. In like manner, a large accumulation of bulletins, circulars and pamphlets stored without some system of ready reference, may serve to conceal the hiding place of the one document which may be the greatest importance at the moment. As for books, they should be selected with care. A good way to start is to keep your school books and then add a few good books to your collection each year. Sometimes second-hand books can be secured at reduced prices. The idea is to have some place at home where you can have a place to file your books and bulletins, then to create the habit of reading.

CORN

1. Deciding the acreage to grow.
2. Selecting land for corn.
3. Planning rotation.
4. Selecting the variety.
5. Determining the best methods of selecting seed.
6. Field selection of seed corn.
7. Storing, curing and care of seed corn.
8. Testing seed corn.
9. Selecting, procuring and applying fertilizer and manure.
10. Determining when to plow.
11. Plowing.
12. Preparing seed bed.
13. Planting.
14. Cultivating.
15. Providing green manure.
16. Cutting for silo.
17. Controlling diseases.
18. Controlling insects.
19. Harvesting.
20. Marketing.
21. Storing the crop.
22. Controlling rodents.
23. Keeping records.

General References for Corn

1. H. & W. Production of Field Crops - Hutcheson-Wolfe.
McGraw, Hill Book Co.
2. Sanders Growing Corn for Grain - H. W. Sanders.
(Publication pending)
3. Cox Crop Production and Soil Management - Cox.
John Wiley & Sons.
4. Bowman Corn - M. L. Bowman.
Waterloo Publishing Co.
5. Mos. Crops and Soils - J. G. Mosier.
Rand McNally & Co.
6. Mont. Productive Farm Crops - E. G. Montgomery.
Lippincott Co.
7. T. E. Smith Farm Crops - Turner E. Smith.
Fm. Cr. Turner E. Smith Co.

Special References for Corn

1. Hinkle Fertility and Crop Production - S. F. Hinkle.
S. F. Hinkle Co.
2. Georgia Manual of Weeds - Ada Georgia
L. H. Bailey Co.
3. Agronomy Publication of the Dept. of Agri. Classified
for the use of teachers.
U. S. Dept. of Agri. Office of Agri. Instruction.
4. Analyses of Corn Enterprise - Teacher Trainer Dept. V. P. I.

CORN

1. Deciding on the acreage to grow.
 - A. 1921, Yearbook, p. 161-226; Separates, 872, 907.
 - B. Sanders job 10; excellent analyses for teacher. Cox, p. 98-102.
 - C. Agricultural Outlook for Year (1927). Prepared by Bur. of Agri. Eco. Fed. Board for Voc. Ed. B. 103. Analysis of the Management of a Corn Growing Enterprise. Dept. Cir. 156. How to use F. B., 1175.
 - D. Corn Products Refining Co., Edgewater, N. J.

2. Selecting land for corn.
 - A. F. B., 414 p. 6-8.
 - B. Mont., p 55-56; T. E. Smith, Fm Cr. p. 145-158. Cox, p. 98-102.
 - C. F. B., 557.
 - D.

3. Planning rotation.
 - A. Va. Ext. B., 99, p. 26.
 - B. H. & W., p. 216-222.
 - C. Dept. B., 1577 Value of rotation in relation to soil productivity.
 - D.

4. Selecting the variety.
 - A. Va. Ext. B., 99 p. 9. F. B., 415, p. 5; F. B., 1175, p. 1-9.
 - B. Cox, p. 51-56, 212-217, 222, 234; Mos., p. 179-184; Sanders Job. 11
 - C. Dept. B., 655, p. 1-3; Md. Ext. B., 29, 237; Ill. B., 261. Ohio Crop Talks 1925 Vol. 3. Dept. B., 1209, Crosses between varieties; Mont., p. 44-48.
 - D.

CORN

5. Determining the best method of selecting seed corn.
 - A.
 - B. Sanders Job 1. Job analysed, excellent material for teacher and student.
 - C.
 - D.

6. Field selection of seed corn.
 - A. F. B., 1175, p. 5, 7, 9; Va. Ext. B. 99, p. 20-22.
 - B. Mos., p. 197; Mont., p. 60-62; T. E. Smith, Fm. Gr. p. 197-201; H. P. W., p. 252; Bowman, p. 97-110; Sanders, job 2, 12.
 - C. Dept. B., 1896-Breeding Methods; Dept. B. 653, p. 3-4, I. H. C. B., Growing Seed Corn. F. B., 415; Va. Exp. B. 202, Cross Strains.
 - D.

7. Storing, curing and care of seed corn.
 - A. Va. Ext. B., 99, p. 22; F. B., 1175, p. 11.
 - B. Mos., p. 197-198; Mont., p. 62-63; Sanders, job 3.
 - C.
 - D.

8. Testing seed corn.
 - A. F. B., 948 - good disc; Va. Ext. B. 99, p. 12; F. B. 1175 Bagdell.
 - B. Sanders, job 14, excellent analysis of job. H. P. W., p. 61; Mont., p. 63; T. E. Smith, Fm. Gr. p. 160-172.
 - C. Mich. B. 289, p. 24-26. Good procedure in making test; Del. B., 128. General; Ill. B. 255. Excellent reference

CORN

for testing corn root, stalk and ear rot diseases.

D.

9. Selecting, procuring and applying fertilizers and manures.

A. F. B., 1149, p. 5-6; Va. Ext. B., 99, p. 17-18, V. Exp. B. 214, p. 12.

B. Sanders, Job 13; F. B., 414, p. 12-16; F. B., 729, p. 3. Va. Exp. B., 221, p. 27-37. H. & W., p. 77-85; Cox, p. 109-111; Mont., p. 38-39; Hinkle, p. 276-290.

C. Fed. Board B., 103, p. 18-25; Ohio B. 282, p. 71-74; N. J. B., 128, p. 16.

D. Potash Booklets and samples - Potash Importing Corp. of America, 10 Bridge St., New York City.

10. Determining when to plow.

A. F. B., 537, p. 12-14.

B. Sanders, Job 7.

C.

D.

11. Plowing.

A. F. B., 414, p. 19-20; Va. Ext. B., 99, p. 14; F. B., 729, p. 2; F. B., 537, p. 12-14.

B. Sanders, Job 7. Excellent discussion; H. & W., p. 70-72. Bowman, p. 143-153; T. E. Smith, Fm. Gr. p. 177-179.

C. Mich. B., 289; N. J. Circ., 128, p. 16; Hinkle, p. 17-173. The Science and Art of Plowing, Deer & Co., p. 32.

12. Preparing seed bed.

A. Va. Ext. B., 99, p. 15; F. B., 414, p. 19-20.

B. Sanders, Job 16; Bowman, p. 152-159; Mont., P. 67-73. Hinkle, p. 173-177.

CORN

C. Mich. B. 289; Cox, 91-95.

D.

13. Planting.

A. Va. Exp. B., 99, p. 15; F. B., 414, p. 20-22; F. B. 729, P. 8-12; Va. Exp. B., 214, p. 10.

B. Sanders, job 17; H. & W., p. 255-258; T. E. Smith, Fm. Cr., p. 188-192; Cox, p. 128-135; Mos., p. 205-207; Mont., p. 69-72.

C. Nebr. B., 188, p. 17.

D.

14. Cultivating.

A. Va. Exp. B., 214, P. 9-11, F. B., 414, p. 16-18, 28-35, F. B., 729, p. 15-16.

B. Sanders, job 18; Bowman ch 8. Good general description; Cox, p. 148-226; T. E. Smith, Fm. Cr., p. 192-194; Mos. p. 207; Hinkle, p. 182-184. Experimental data; Ment. p. 74-75. Good general discussion.

C. Lantern slides - Corn is King.

D.

15. Providing green manure.

A.

B. Cox, p. 107-108; Mos., p. 273-297; Ment., p. 32-37; T. E. Smith, Fm. Cr., p. 559-556.

C.

D.

16. Cutting for silo.

A. F.B. 578.

B. H. & W., p. 169-171; Ment., p. 85-89; Mos., p. 211-212;

CORN

Cox, p. 446.

- C. F. B., 825 Pit silos; Va. Exp. B., 227, Experiments.
- D. Corn Products. American Manufacturer's Assn. of Products of Corn, 208 South LaSalle St., Chicago, Ill.

17. Controlling diseases.

- A. Va. Exp. B., 99, p. 32.
- B. Cox, p. 147-175; H. & W., p. 260-262. Mont., p. 90.
- C. F. B., 939 Smuts. Dept. B., 1062, Relation of endosperms to root rotting; Ill. Cir. 228-C.
- D.

18. Controlling insects.

- A. Va. Ext. B., 99, p. 29-32; F. B., 1294, European Corn Borer; F. B., 739, p. 5 Gutworm.
- B. H. & W., p. 258-260; T. E. Smith, Fm. Cr., p. 208-215. Sanders, job 15; European corn borer; Cox, p. 147-173; Mos., p. 216-220; Mont., p. 91-92.
- C. F. B., 1025 Large Corn stalk borer. F. B., 891 Root-Aphis; F. B., 875 Stock Beetles; Iowa cir. 100; Dept. B., 1476 Corn Borer; Ill. cir. 247; F. B. 1030 Ear Worm. Separate 831. Dept. B., 1428 The Cadelli; Dept. B., 1393 Weevil; Dept. B., 1267 Stalk beetle; F. B., 1483; F. B., 1260 Stored grain pests; Dept. B., 559, Lesser corn stalk borer; Wis. Cir. 104.
- D.

19. Harvesting.

- A. Va. Ext. B., 99, p. 22-24; F. B. 1149.
- B. Sanders, job 4; 8 Husking; H. & W., p. 124-127; Bowman, p. 370-382.
- C. Dept. B., 708 Shock protection for ear corn. F. B., 992 Machinery; F. B., 729; F. B., 537. Mont., p. 81-83. T. E. Smith, Fm. Cr., p. 218-227.
- D.

COEN

20. Marketing.

- A. Dept. B., 957 Cooperative Grain Market.
- B. Mont., p. 495-498; Cox, p. 240-242; Mos., p. 215;
T. E. Smith, Fm. Cr., p. 227-228.
- C. Dept. B., 696. Farm prices; Separate, 872, p. 195-226;
Sanders, job 9.
- D.

21. Storing the Crop.

- A. Va. Ext. B., 99, p. 22-25; F. B., 1175, p. 9-11.
- B. Sanders, job 8; H. & W., p. 126; Bowman, p. 102-112.
- C. Wis. Cir. 58, p. 4-11.
- D.

22. Controlling rodents

- A. F. B., 702.
- B.
- C.
- D.

23. Keeping records.

- A. F. B., 1139 Analyzing the farm business.
- B. Sanders, job 5; Mont., p. 84-85; Cox 241; Dept. Cir. 340.
- C. F. B., 511 Farm bookkeeping; Separate 872, p. 188-194.
- D.

Small Grains**WHEAT**

1. Determining the No. of acres to seed.
- ~~1. Deciding the acreage and field.~~
- ~~A. Selecting the field.~~
2. Selecting the variety.
3. Procuring the seed.
4. Fertilizing.
5. Liming the soil.
6. Preparing the seed bed.
7. Preparing the seed for planting.
8. Sowing the seed.
9. Harvesting.
10. Threshing.
11. Marketing the grain.
12. Controlling diseases and pest.
13. Records and accounts.

General References for Wheat

1. H. & W. **Production of Field Crops - Hutcheson & Wolfe.**
 McGraw, Hill Book Co.
2. Cox **Crop Production and Soil Management.**
 John Wiley & Sons.
3. Mont. **Productive Farm Crops - Montgomery**
 Lippincott Co.
4. Mos. **Crops and Soils - Mosier.**
 Rand McNally & Co.
5. T. E. Smith **Farm Crops - Turner E. Smith.**
 Fm. Cr. **Turner E. Smith Co.**

Special Reference for Wheat

- Hinkle Fertility and Crop Production - S. F. Hinkle.**
 S. F. Hinkle Co.

WHEAT

1. Deciding the acreage and field.

- A. F. B., 678; F. B., 865 Growing wheat in the southern states.
- B. Cox, 98-102; T. E. Smith Fm. Cr., p. 441-442.
- C. 1921 Year Book, Separate No. 873; 1923 Year Book, p. 95-150; F. B., 786 Fall-sown grains; The agricultural outlook for year.
- D. Charts on small grain - U. S. D. A., Washington, D. C.

2. Selecting the variety.

- A. F. B., 1168; Va. Exp. B., 216, p. 3-4, F. B., 1305 Soft red winter.
- B. T. E. Smith, Fm. Cr., p. 444-447; H. & W., p. 41-54; Dept. B., 1064 Rust resistance.
- C. Dept. B., 1074 Excellent general information and illustrations; Dept. B., 557; F. B., 1304 Durum; F. B., 1301 White wheat; F. B., 1280 Red winter; F. B., 1281; Dept. Cir. 378; F. B., 616 Varieties of winter wheat; F. B., 786, p. 14-15.
- D.

3. Procuring the seed.

- A. F. B., 1280; F. B., 1281.
- B. H. & W., p. 55-59, 60-66; Cox, p. 71-72; Mos., p. 234; Mont., p. 128-129.
- C.
- D. Exhibits - Pillsbury Flour Company.

4. Fertilizing.

- A. Va. Exp. B., 216-12-14; Va. Exp. B., 221; F. B., 596, P.5-7.
- B. H. & W., p. 77-85; Hinkle, p. 13-27, 198-298. General information.

WHEAT

- C. F. B., 786, p. 5-7.
- D. Set of fertilizer samples - Morris and Co., Chicago.
5. Liming the soil.
- A. Va. Exp. B., 257, p. 17; F. B., 921.
- B. H. & W., p. 94-100; Hinkle, p. 45-67 - General Information
- C. Cox, p. 109-111; Mos., p. 90-91; Mont., p. 38. Cornell Reading Course Lesson 148.
- D. Lime charts - National Lime Asso., 918 G. St., N. W. Washington, D. C.
6. Preparing the seed bed.
- A. Va. Exp. B., 216, p. 7; Va. Ext. B., 30 - Seed selection.
- B. T. E. Smith, Fm. Cr., p. 447-448; H. & W., Ch. 10; Cox, p. 246-247.
- C. Hinkle, p. 170-177 - Good general information; Mos., p. 136-137, 234-236; Mont., 124-129; F. B., 786, p. 8-9; Dept. B., 253 Plowing.
- D.
7. Preparing the seed for planting.
- A. F. B., 786, p. 9-10.
- B. H. & W., p. 67-76. Dept. B., 1382 Hot water and steam for loose smut.
- C. F. B., 939, Treating for smut; Testing seed. Cox, p. 69-70, 78-79; Mont., p. 128-129; Mos., p. 234.
- D. Effect of weeds seed in wheat on bread making, U. S. D. A. Office of Agri. Inst.
8. Sowing the seed.
- A. Va. Exp. B., 216, p. 5-6, 10-11; F. B., 885, p. 6-7; F. B. 786, p. 10-12.

WHEAT

B. T. E. Smith, Fm. Cr., p. 448-453; H. & W., 276-280, 101-110;

C. Cox, p. 248-249; Mos., p. 236-237; Mont., p. 127-128.

D.

9. Harvesting.

A. F. B., 786, p. 12-14.

B. T. E. Smith, Fm. Cr., p. 453; H. & W., p. 119-134; Cox, p. 179-182; Mos., 237-238.

C. Dept. B., 1211 Harvest labor in the wheat belt; Dept. B., 627; Mont., p. 132.

D.

10. Threshing.

A. F. B., 991; F. B., 786, p. 14.

B. Cox, p. 182-184; Mont., p. 132-133.

C.

D.

11. Marketing the grain.

A. Dept. B., 937; Cooperation grain markets.

B. Cox, p. 257-270; Mont., p. 133-135; Dept. B., 1083, p. 1-6. Mos., p. 226.

C. Dept. B., 860 Grain Elevators; Dept. B., 594 Wheat prices; Dept. B., 558; Marketing at country points; F. B., 1287, Foreign material; F. B., 919 Dockage, Md. Ext. B., 30.

D.

12. Controlling diseases and pests.

A. F. B., 1260; Va. Exp. B., 216, p. 8-9 Smut; F. B., 1414 Sossotte.

WHEAT

- B. H. & W., p. 281-284; Mont., p. 137-140; Cox, p. 147-156; Mos., p. 243-135.
- C. F. B., 1083 Hessian Fly; F. B., 507 Smut; Va. Exp. B., 222 Nematod; F. B., 1006 Jointworm; F. B., 1041 Eelworm; F. B., 1224 Scab; F. B., 1226 Take all; F. B., 1058 Barberry; F. B., 731 Army Worm; F. B., 1260 Stored grain pests; Dept. B., 1137 Rosette; 1085 Broad nose grain weevil; Dept. B., 1008 Hessian Fly; Dept. B., 842 Nematod; Misc. Cir 76; Bunt Stinking smut; Dept. Cir., 365 Stem rust; Dept. Cir., 356 Barberry; Dept. Cir., 332; Dept. B., 1347 Foot rot; Dept. Cir., 273 Flag smut; Dept. Cir., 186 Downy mildew; F. B., 1005 Bellbugs; F. B., 725 Wire worm; Dept. B., 1210; Dept. B., 1239 Smut.
- D. Wheat joint worm chart - U. S. D. A., Washington, D. C. Mounted specimen of common Barberry, U. S. D. A. Bureau Plant Ind.

13. Keeping records.

- A. F. B., 1139 - Separate 898, p. 122-130.
- B. Cox, p. 271; Mont., p. 133-135; Mos. p. 234.
- C. Dept. B., 943; Cost of production; Dept. B., 1198 Cost of production.
- D. Cir., 340 Cost of producing field crops.

OATS

1. Deciding acreage.
2. Selecting variety.
3. Securing good seed.
4. Fertilizing.
5. Applying lime.
6. Preparing seed bed.
7. Preparing seed for planting.
8. Sowing the seed.
9. Controlling insects and diseases.
10. Harvesting oats.
11. Threshing oats.
12. Marketing oats.
13. Keeping records.

OATS**General References for Oats**

1. H. & W. **The production of Field Crops - Hutcheson & Wolfe.
McGraw, Hill Book Co.**
2. Cox **Crop Production and Soil Management - Cox.
John Wiley & Sons.**
3. Mont. **Productive Farm Crops.
Lippincott Co.**
4. Mos. **Crops and Soils - Mosier.
Rand McNally Co.**

Special Reference for Oats

1. Hinkle **Fertility and Crop Production - S. F. Hinkle
S. F. Hinkle Co.**

OATS

1. Deciding acreage.

- A. F. B., 892, p. 3-5; F. B., 436 Winter oats, p. 3-4.
- B. 1922 Year Book, p. 469-486, Separate 891; Cox, p. 98-102, 280-281.
- C. Misc. Cir., 101; Agri. outlook for the year.
- D.

2. Selecting variety.

- A.
- B. H. & W., p. 287-292; Dept. Cir., 353.
- C. Dept. Dir., 324 Marston oat variety immune from covered smut; Dept. Cir., 193 Fulghum oats.
- D.

3. Securing good seed.

- A.
- B. H. & W., p. 292-294; Mont., p. 160; Mos., p. 254-255.
- C. Cox, p. 69-71; 274-277.
- D.

4. Fertilizing

- A. F. B., 892, p. 5-6; F. B., 436, p. 7-9.
- B. Hinkle, p. 13-27, 198-298 Good general information.
- C. Cox, p. 111-114, 278-279; Mos., p. 112-113; Mont. p. 158-159.
- D.

5. Applying lime.

- A. F. B., 921

OATS

- B. Hinkle, P. 45-67; Good general information
 - C. Cox, p. 109-111; Mos., p. 111-112; Mont., p. 38.
 - D. Lime charts - National Lime Asso., 918 G. St., Washington, D. C.
6. Preparing seed bed.
- A. F. B., 892, p. 9-10; F. B., 436, p. 10-11.
 - B. Hinkle, p. 170-177, Good general information; Mont. p. 159-160.
 - C. Mos., p. 259; Cox, p. 276-277.
 - D.
7. Preparing seed for planting.
- A. F. B., 892, p. 11-12; F. B., 436, p. 10-11.
 - B. Cox, p. 76-79, 152-153; Mont., p. 160-161; Mos., p. 254.
 - C.
 - D.
8. Sowing the seed.
- A. F. B., 892, p. 11-15; F. B., 436, p. 11-13.
 - B. Mont., p. 162-164; Mos., 259-261; Cox, p. 277-278.
 - C.
 - D.
9. Controlling insects and diseases.
- A. F. B., 1260 Stored grain pests; F. B., 939, p. 12-14, F. B., 1260 Insects.
 - B. H. & W., p. 294-295; Cox, p. 275-276; Mos., p. 261-262; Mont., p. 167.

OATS

C. Dept. B., 1058, Sterility.

D.

10. Harvesting oats.

A. F. B., 892, p. 17-21; F. B., 436, p. 14-15.

B. Mont., p. 167; Mos., p. 260-261; Cox, p. 180-182, 279.

C.

D.

11. Threshing oats.

A. F. B., 892, p. 21-22.

B. Cox, p. 182-184; Mos., p. 261-262; Mont., p. 169.

C.

D.

12. Marketing oats.

A. Dept. B., 1351

B. Separate 891, p. 482-483; Dept. B., 755 Prices of oats.

C. Mont., p. 171-173; Mos., p. 255; Cox, p. 108, 448.
Agri. Economics Bureau, Handbook of Official Grain Standards.

13. Keeping records.

A. F. B., 1139.

B. Cox, p. 281; Mont., p. 152.

C. Dept. Cir., 340.

D.

RYE

1. Deciding the acreage.
2. Selecting the variety.
3. Securing the seed.
4. Preparing the seed bed.
5. Liming the soil.
6. Fertilizing.
7. Preparing and sowing.
8. Controlling insects and diseases.
9. Harvesting.
10. Threshing.
11. Disposing of the crop.
12. Keeping records.

RYE**General References for Growing Rye**

1. H. & W. **The Production of Field Crops - Hutcheson & Wolfe.
McGraw, Hill Book Co.**
2. Cox **Crop Production and Soil Management.
John Wiley & Sons.**
3. Mont. **Productive Farm Crops - E. G. Montgomery.
Lippincott Co.**
4. Mos. **Crops and Soils - Mosier
Rand McNally & Co.**

Special Reference for Rye Growing

1. Hinkle **Fertility and Crop Production - P. S. Hinkle
S. F. Hinkle Co.**

RYE

1. Deciding the acreage.
 - A. F. B., 894, p. 3, 6.
 - B. Cox, p. 98-102; Agri. outlook for the year.
 - C. Separate, 891, p. 501-512.
 - D.

2. Selecting the variety.
 - A. F. B., 894, p. 5; F. B., 939, p. 17-18.
 - B. H. & W., p. 308-309; Cox, p. 286-288.
 - C.
 - D.

3. Securing the seed.
 - A. F. B., 1232 Marketing hints.
 - B. H. & W., p. 309-311; Cox, p. 71-73; Mos., p. 272; Mont. p. 14.
 - C.
 - D.

4. Preparing the seed bed.
 - A. F. B., 894, p. 8.
 - B. Hinkle, p. 170-177 Good general information; Cox, p. 289.
 - C. Mos., p. 272-273; Mont., p. 193.
 - D.

5. Liming the soil.

RYE

- A. F. B., 921.
 - B. Hinkle, p. 45-67 Good general information.
 - C.
 - D. See wheat.
6. Fertilizing.
- A. F. B., 894, p. 9.
 - B. Cox, p. 289; Hinkle, p. 13-27, 198-298 Good general information.
 - C. Mos., p. 111-113; Mont., p. 38, 192.
 - D.
7. Preparing and sowing seed.
- A. F. B., 894, p. 10-11.
 - B. Cox, p. 288, 291, 289; Mos., p. 272-273; Mont., p. 14, 193.
 - C.
 - D.
8. Controlling insects and diseases.
- A. F. B., 894, p. 13; F. B., 939, p. 4-11; F. B., 1260 Insects.
 - B. Cox, p. 291; Mos., p. 274; Mont., p. 194, 195; H. & W., p. 311.
 - C.
 - D.
9. Harvesting.
- A. F. B., 894, p. 11-12.
 - B. Cox, p. 179-182, 290; Mos., 272-273; Mont., p. 193.
 - D. Grain Standards for Rye - Cox, p. 292-296.
 - D.

RYE

10. Threshing.

A. F. B., 894, p. 12.

B. Mont., p. 193; Cox, p. 182-185, 291; Mos., p. 273.

C.

D.

11. Disposing of crop.

A. Dept. Cir., 246.

B. H. & W., p. 193; Cox, p. 291-295; Mos., p. 273-274;
Mont., p. 194.

C.

D.

12. Keeping records.

A. Mont., p. 194.

B. Mos., p. 271-272.

C.

D.

BARLEY

1. Determining the acreage.
2. Selecting the variety.
3. Securing the seed and preparing for sowing.
4. Treating seed.
5. Fertilizing.
6. Preparing seed bed.
7. Sowing the seed.
8. Controlling diseases and insects.
9. Harvesting.
10. Threshing.
11. Disposing of crop.
12. Keeping records.

BARLEY**General References for Barley**

1. H. & W. **The Production of Field Crops - Hutcheson & Wolfe.
McGraw, Hill Book Co.**
2. Cox **Crop Production and Soil Management - Cox
John Wiley & Sons.**
3. Mont. **Productive Farm Crops - A. G. Montgomery
Lippincott Co.**
4. T. E. Smith **Farm Crops - Turner E. Smith.
Fm. Cr. Turner E. Smith Co.**

Special Reference for Barley

1. Hinkle **Fertility and Crop Production - S. F. Hinkle
S. F. Hinkle Co.**

BARLEY

1. Determining the acreage.
 - A. F. B., 1464, p. 1-8.
 - B. Cox, p. 98-102; T. E. Smith Fm. Cr., p. 427-428.
 - C. Separate 891, p. 486-500.
 - D.

2. Selecting the variety.
 - A. F. B., 1464; F. B., 939, p. 19-20.
 - B. H. & W., p. 302-305; Cox, p. 297; Dept. B., 1334.
 - C. Dept. B., 622 Very good description and illustration.
 - D.

3. Securing the seed and preparing for sowing.
 - A. F. B., 1464, p. 10-11, 29.
 - B. Mont., p. 184-185; T. E. Smith, Fm. Cr., p. 429-430.
 - C. Cox, p. 71-73; Mos., p. 269.
 - D.

4. Treating the seed.
 - A. F. B., 786.
 - B. T. E. Smith, Fm. Cr., p. 431; Cox, p. 289; Mos., p. 269; Mont., p. 185.
 - C.
 - D.

5. Fertilizing
 - A. F. B., 1464, p. 9-10.

BARLEY

- B. Hinkle, p. 13-27, 198-298, good general information.
 - C. T. E. Smith, Fm. Cr., p. 432; Cox, p. 299.
 - D. See wheat.
6. Preparing seed bed.
- A. F. B., 968; 1464 p, 11-13.
 - B. Cox, p. 298; Hinkle, p. 170-177 Good general information.
 - C. T. E. Smith, Fm. Cr., p. 430-432; Mos. 268-269; Mont. p. 185.
 - D.
7. Sowing the seed.
- A. F. B., 1464, p. 13-16.
 - B. H. & W., p. 305-306; T. E. Smith, Fm. Cr., p. 432-435.
 - C. Cox, p. 299; Mos., p. 269; Mont., p. 185.
 - D.
8. Controlling diseases and insects.
- A. F. B., 1464, p. 30-31; F. B., 835; F. B., 507, Smut; F. B., 939; F. B., 1260 Insects.
 - B. H. & W., p. 306; Cox, p. 150-152; 298; Mos., p. 269; Mont., p. 185-186.
 - C.
 - D.
9. Harvesting.
- A. F. B., 1464, p. 17-19.
 - B. Cox, p. 300; T. E. Smith Fm. Cr., p. 435-437; Mont., p. 185; Mos., p. 269.

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C.

D.

10. Threshing.

A.

B. Mont., p. 185; Cox, p. 300; Mos., p. 269.

C. Threshing Machines F. B., 991.

D.

11. Disposing of crop.

A. F. B., 1464, p. 20.

B. Separate 891, p. 497-498; Cox, p. 301; Mos., 267-268.

C. T. E. Smith, Fm. Gr., p. 437-438; Mont., p. 174-175.

D.

12. Keeping records.

A. F. B., 511 Bookkeeping; F. B., 1139 Analyzing the Farm Business.

B. Mos., p. 265-266; Mont., p. 174.

C. Dept. Cir., 340 Cost of producing feed crops.

D.

Buckwheat

A. F. B., 1062.

B.

C.

D.

POTATOES, *list*

1. Determining the acreage of potatoes to be grown.
2. Selecting the field.
3. Selecting the variety.
4. Securing seed stock.
5. Plowing.
6. Preparing seed bed.
7. Securing fertilizer.
8. Applying fertilizers.
9. Preparing seed for planting.
10. Planting.
11. Cultivating.
12. Controlling diseases and insects.
13. Harvesting.
14. Storing.
15. Grading.
16. Marketing.
17. Exhibiting.
18. Care and repair of potato machinery.
19. Improving the potato.
20. Keeping records.

POTATOES

1. Determining the acreage of potatoes to be grown.
 - A. F. B., 1190, p. 1-2; Va. Exp. B., 217; 1205, p. 3-4; Separate 931, p. 340-360.
 - B. Fed. Board for Voc. Ed. B., 74.
 - C. Dept. B., 695; F. B., 1064 Late or main crop.
 - D.

2. Selecting the field.
 - A. Dept. B., 784, p. 13-15.
 - B.
 - C. Fall Crop F. B., 1205, p. 29-39.
 - D.

3. Selecting the variety.
 - A. Va. Ext. B., 60, p. 9; Dept. B., 784, p. 10-11.
 - B. F. B., 1064 Main or late crop.
 - C. Mich. Exp. Spec. B., 117; Va. Exp. B., 217, p. 3-5; Dept. B., 176 Good illustrations.
 - D.

4. Securing seed stock.
 - A. F. B., 1332; Voc. Agri. Ser (H) p. 586-589; Va. Exp. B. 217, p. 9.
 - B. S. C. Ext. B. 83.
 - C. Cornell Ext. B., 125; Md. Exp. B., 172, 265; Va. Tr. Expt. B. 24; Dept. B., 784, p. 4-7; F. B., 1205, p. 11-13 good; Separate 931, p. 355.
 - D. Learn to know potato diseases
Ohio Exp. Station, Wooster, Ohio.

POTATOES

5. Plowing.

A. See corn.

B.

C.

D.

6. Preparing seed bed.

A. Va. Ext. B., 60, p. 17; Va. Exp. B., 217, p. 6.

B.

C.

D.

7. Securing fertilizer.

A. F. B., 1205, p. 7-9; Va. Exp. B., 221.

B. Vermont B., 216; Dept. B., 998; Effect of Borax in fertilizer on growth of potatoes.

C.

D. Refined potash salts and rocks - Potash Importing Corp. of America, 81 Fulton St., New York.

8. Applying fertilizer.

A. Va. Ext. B., 60, p. 14-17; Va. Truck Exp. B., 7, p. 134-136; B., 21, p. 434-437.

B.

C. N. Y. B., 491; Va. Exp. 217, 285; N. J. Exp. Cir. 140, 131; Mass. Exp. B., 42; Fert. Va. Tr. Exp. B., 21; Va. Expt. B., 221; Va. Exp. B., 217, p. 12.

D. Plant food and soil management charts - Nat'l Fert. Asso. Atlanta.

POTATOES

9. Preparing seed for planting.

- A. F. B., 1205, p. 14-17.
- B.
- C. Cornell Junior Ext. B., 6; Dept. B., 1248, Whole and cut seeds - good reference.
- D.

10. Planting.

- A. F. B., 1205, p. 12-14, 17-20; Dept. B., 784, p. 16-18.
- B.
- C. Spacing - N. Y. Exp. B., 474; Pro. of late crops 1064; Va. Exp. B., 217, p. 5-8.
- D.

11. Cultivating.

- A. Va. Ext. B., 60, p. 20-22; F. B., 1190, p. 18-22; Dept. B. 784, p. 18.
- B. Separate 931, p. 356-359.
- C. Va. Exp. B., 217; Hinkle, p. 182-197 - Good general reference.
- D.

12. Controlling diseases and insects.

- A. F. B., 1462 - Leafhopper; F. B., 1367, Tuber diseases; Dept. Cir. 220; Va. Ext. B., 60, p. 22-28; F. B., 1349 Spraying; Voc. Agri. Ser. (H) p. 395.
- B. Ohio Exp. B., 374 - 319.
- C. Ill. Cir. 31-X; Maine B., 277; Minn. B., 32; Va. Exp. B. 217; F. B., 544 - Late blight; N. J. Exp. B., 384; Spraying; N. J. Exp. B., 383 - Leaf hopper; Wis. Exp. B., 334; Va. Tr. Exp. B., 29; Va. Exp. B., 251 - Tuber moth; Dept. B., 784, p. 19-21; Dept. Cir., 281 - Brown rot.

POTATOES

D. Controlling scab - American Steel & Wire Co. 208 La Salle St., Chicago, Illinois.

13. Harvesting.

A. Va. Ext. B., 60, p. 29-30; F. B., 1205, p. 22-25.

B.

C. Basley, P. 210-212.

D.

14. Storing.

A. F. B., 1190; F. B., 1205, p. 25-26; Dept. B., 784, p. 9-10.

B. Dept. B., 916 Freezing when under-cooled.

C. F. B., 847; Va. Exp. B., 217, p. 13; F. B., 1091 Protection in transit.

D.

15. Grading.

A. Dept. Cir., 238 Grades.

B. S. C., Ext. B., 68.

C. F. B., 753; N. J. Ext. B. Vol. 1 - No. 5; F. B., 753; Dept. Cir., 96 Grades.

D.

16. Marketing.

A. Va. Ext. B., 60, p. 31; F. B. 1205, p. 26; Dept. B., 784, p. 7-8; F. B., 1317 Main crop.

B. F. B., 1316 - Early crop.

C. Minn. Ext. B., 50; S. C. Ext. B., 68; Mich. Exp. Spec. B. 137. Shipping; F. B., 1091, 1050; 1196 Containers; F. B. 753; Dept. B., 1055 Potato chips.

D.

POTATOES

17. Exhibiting.

A. F. B., 847; F. B., 1064

B.

C. U. S. D. A. Cir. 96.

D.

18. Care and repair of potato machinery.

A. Va. Exp. B., 217, p. 11.

B.

C.

D.

19. Improving the potato.

A. F. B., 1332.

B. Dept. B., 1146 Copper sprays.

C. Ky. Exp. Cir. 34.

D. Posters-spraying potato field; Potato beetles -
U. S. D. A. B. Ent., Washington, D. C.

20. Keeping records.

A. F. B., 1139.

B. Dept. B., 1188; Dept. Cir., 340.

C. F. B., 511.

D.

BRIGHT TOBACCO.

1. Deciding on the number of acres to be grown.
2. Selecting of field for tobacco.
3. Preparation of plant bed.
4. Treating of seed.
5. Selecting variety.
6. Planting of seed bed.
7. Fertilizing.
8. Transplanting.
9. Cultivation.
10. Controlling insects.
11. Controlling diseases.
12. Topping and suckering.
13. Harvesting.
14. Curing.
15. Cutting of wood and repair of barns.
16. Stripping and grading.
17. Marketing.
18. Keeping records.

BRIGHT TOBACCO**General Reference for Bright Tobacco**

1. T. E. Smith Farm Crops - Turner E. Smith.
 Fn. Cr. Turner E. Smith Co.

Special Reference for Bright Tobacco

1. Hinkle Fertility and Crop Production - S. F. Hinkle
 S. F. Hinkle

BRIGHT TOBACCO

1. Deciding on the number of acres to be grown.
 - A. Va. Exp. B., 241; Va. Exp. B., 225, 5-12, 25-30; Va. Ext. B., 62, p. 3.
 - B. 1922 Year Book Separate 885, p. 395-468.
 - C. F. B., 571, p. 3.
 - D. Kentucky Tobacco Products Co., Louisville, Ky.

2. Selecting field for tobacco.
 - A. Va. Ext. B., 62, p. 4.
 - B. T. E. Smith, Fm. Cr., p. 359-369.
 - C.
 - D.

3. Preparation of plant bed.
 - A. Va. Ext. B., 62, p. 4-6; F. B., 996 Steam sterilization.
 - B. T. E. Smith, Fm. Cr., p. 385-388.
 - C.
 - D.

4. Treating of seed.
 - A. F. B., 571, p. 6-8.
 - B. T. E. Smith, Fm. Cr., p. 388-390.
 - C.
 - D.

5. Selecting variety.
 - A. Va. Ext. B., 62, p. 6-7.

BRIGHT TOBACCO

- B. T. E. Smith, Fm. Cr., p. 372-374.
- C.
- D.
6. Preparing of seed bed.
- A. Va. Ext. B., 62, p. 7-12.
- B. T. E. Smith, Fm. Cr., p. 401-402; Hinkle, p. 170-177 -
General reference.
- C.
- D.
7. Fertilizing.
- A. Va. Exp. B., 198; Va. Exp. B. 221.
- B. T. E. Smith, Fm. Cr., p. 375-381; Hinkle, p. 13-27, 198-298.
- C. Hinkle, p. 269-273.
- D.
8. Transplanting.
- A. Va. Ext. B., 62, p. 12; F. B., 571, p. 8-9.
- B. T. E. Smith, Fm. Cr., p. 402-403.
- C.
- D.
9. Cultivation.
- A. F. B., 571; Va. Ext. B., 62, p. 12-13; F. B., 571, p. 10.
- B. T. E. Smith, Fm. Cr., p. 403-405; Hinkle, p. 182-197 -
Good general information.
- C. Ga. State Col. of Agri. B., 199; N. C. B. 237; S. C. Ext.
B. 43.
- D.

BRIGHT TOBACCO

10. Controlling insects.

- A. See dark tobacco.
Dept. B., 737 - Beetle; F. B., 1489 - Green June beetle larva; F. B., 846 - Beetle.
- B. T. E. Smith, Fm. Cr., p. 393-399; Cutworm; F. B., 1494.
- C. F. B., 1356 - Hornworm; F. B., 1352 - Flea-beetle; F. B., 819 - Budworm.
- D.

11. Controlling diseases.

- A. F. B., 571, p. 21-24; Va. Ext. B. 90; Va. Ext. B., 62, p. 25-30.
- B. Dept. B., 1256 - Excellent information on most all diseases.
- C. Va. Exp. B. 228 - Blackfire and angular leaf spot; N. C. 246 - Wildfire.
- D. Dept. B., 765 - Rot-rot.

12. Topping and suckering.

- A. Va. Ext. B. 62, p. 13-15.
- B. T. E. Smith, Fm. Cr. p. 405-406.
- C.
- D.

13. Harvesting.

- A. Va. Ext. B., 62, p. 15-16; F. B., 571, p. 10-14.
- B. T. E. Smith, Fm. Cr., p. 409-412.
- C.
- D.

14. Curing.

- A. F. B., 523; Va. Ext. B., 62, p. 20-23.

BRIGHT TOBACCO

B. T. E. Smith, Fm. Cr., p. 412-418.

C. N. C. Exp. B. 237.

D.

15. Cutting of wood and repair of barns.

A. Va. Ext. B. 62, p. 16-20.

B.

C. N. C. Ext. Cir 18.

D.

16. Stripping and grading.

A. Va. Ext. B. 62, p. 24-25.

B.

C. F. B., 416, Agar-leaf; Misc. Cir 55 - Type classification.

D.

17. Marketing.

A.

B. T. E. Smith, Fm. Cr., p. 421-424.

C. The Tobacco Growers' Co-operative Marketing Asso., Raleigh, N. C.; Separate 885, p. 433-448 - A good description of the three methods of marketing tobacco.

18. Keeping records.

A. Va. Exp. B. 225, p. 14-22; F. B., 511, Farm Bookkeeping.

B. Ga. Ext. B. 1922 Year Book, p. 425-432 Separate 885.

C. Dept. Cir, 340 - Cost of producing farm crops.

D.

DARK TOBACCO

1. Deciding the number of acres to grow.
2. Determining rotation.
3. Selecting the field.
4. Preparing plant beds.
5. Selecting the seed.
6. Treating the seed.
7. Seeding and care of beds.
8. Preparing land for tobacco.
9. Fertilizing field.
10. Transplanting.
11. Cultivating.
12. Suckering and topping.
13. Controlling insects
14. Controlling diseases.
15. Harvesting and curing.
16. Stripping and grading.
17. Marketing.
18. Keeping records.

DARK TOBACCO**General Reference for Growing Dark
Tobacco**

1. T. E. Smith Farm Crops - Turner E. Smith.
 En. Cr. Turner E. Smith Co.

**Special Reference for Growing Dark
Tobacco**

1. Hinkle Fertility and Crop Production - S. F. Hinkle
 S. F. Hinkle.

DARK TOBACCO

1. Deciding the number of acres to grow.
 - A. Va. Ext. B. 96; Va. Exp. B. 225, p. 5-8, 29-34.
 - B. Va. Exp. B., 231, Experiments.
 - C.
 - D.

2. Determining rotation.
 - A.
 - B. See bright tobacco.
 - C.
 - D.

3. Selecting the field.
 - A.
 - B. T. E. Smith, Fm. Cr., p. 359-369.
 - C.
 - D.

4. Preparing plant beds.
 - A. F. B., 571, p. 6-7; Va. Ext. B. 62, p. 4-6.
 - B. T. E. Smith, Fm. Cr. p. 385-388.
 - C.
 - D.

5. Selecting the seed.
 - A. F. B., 571, p. 24.
 - B.
 - C.
 - D.

DARK TOBACCO

6. Treating the seed.

A.

B. T. E. Smith, *Fm. Cr.* p. 388-390.

C.

D.

7. Seeding and care of bed.

A. *F. B.*, 571, p. 15.

B.

C.

D.

8. Preparing land for tobacco.

A. *Va. Ext. B.*, 62, p. 7-12.

B. Hinkle, p. 170-177, good general reference.

C.

D.

9. Fertilizing field.

A. *Va. Exp. B.*, 225, p. 35-37; *Va. Exp. B.*, 221.

B. Hinkle, p. 13-27; 198-298.

C. *Tenn. Exp. B.* 129

D.

10. Transplanting.

A.

B. See bright tobacco.

C.

D.

DARK TOBACCO

11. Cultivating.

A.

B. Hinkle, p. 182-197 - Good general information.

C.

D.

12. Suckering and topping.

A.

B. See bright tobacco.

C.

D.

13. Controlling diseases.

A. F. B., 571- p. 21

B. Dept. B., 1256 - Excellent for most all diseases.

C. Dept. B., 562 - Tobacco witt; Dept. Cir., 174 - A dangerous disease.

D.

14. Controlling insects.

A. F. B., 1425, Flea beetle; F. B., 1352; F. B., 1489 - June beetle larva.

B. Dept. B., 1256 - Diseases.

C.

D.

15. Harvesting.

A. F. B., 751, p. 10-11.

B.

C.

DARK TOBACCO

D.

16. Harvesting and curing.

A.

B. See bright tobacco.

C.

D.

17. Stripping and grading.

A.

B. See bright tobacco.

C.

D.

18. Marketing.

A. Va. Exp. B., 225, p. 12.

B. T. E. Smith, Fm. Cr. p. 421-424.

C. Separate, 885, p. 433-448.

D.

19. Keeping records.

A. Va. Exp. B. 225, p. 14-34; F. B., 511 - Farm bookkeeping.

B. Dept. Cir. 340 - Cost of producing field crops.

C. 1922 Year Book, p. 425-432.

D.

COTTON

1. Deciding the number of acres to grow.
2. Selecting the variety.
3. Securing the seed.
4. Selecting the land.
5. Preparing the seed bed.
6. Securing and applying fertilizer.
7. Planting.
8. Cultivating.
9. Chopping.
10. Controlling diseases.
11. Controlling insects.
12. Making infestation counts.
13. Side dressing.
14. Picking.
15. Ginning.
16. Classes and grading of cotton.
17. Marketing.
18. Growing certified seed.
19. Selling certified seed.
20. Improving quality by selection and ginning.
21. By-products.
22. Storing.
23. Rotation.
24. Keeping records.

COTTON**General Reference for Cotton**

1. T. E. Smith, Farm Crops - Turner E. Smith.
Fm Cr. Turner E. Smith Co.
2. Collings The Production of Cotton - Collings
Wiley Agri. Series
3. Duggar Southern Field Crops - F. C. Duggar.
4. Brown Cotton - H. B. Brown.
McGraw, Hill Book Co.

Special Reference for Cotton

1. Agricultural Library Notes Vol. 1, No. 6. Supply 1926.
Emma B. Hawks, Associate Librarian U. S. Dept. of Agri.
2. Misc. Cir. B. 43 - Lessons on Cotton.
3. Taylor - Soil Culture and Modern Farm Methods - E. W. Taylor
Deer & Co.
4. Virginia State Crop Pest Commission - Vol. 7, No. 4.

COTTON

1. Deciding the number of acres to grow.
 - A. T. E. Smith, Fm. Cr. Ch. 1; Va. Ext. B. 86; F. B., 1384; Community prod.
 - B. The cotton situation, Separate 877, p. 323-406.
 - C. Ginning reports. Sec. Dept. of Commerce, Washington, D.C. Crop Reports U. S. Bureau of Agri. Eco; N. C. Ext. Cir. 124; Brown, Ch. 21; N. C. Ext. B., 164; Ala. Exp. Cir. 567.
 - D. Charts - Soil Improvement Asso., Atlanta; Ag. Duggar, p. 379-384.

2. Selecting the variety to grow.
 - A. Dept. B., 1111; F. B., 1384.
 - B. Collings Ch. 7; Dept. B., 1148, Spinning tests of superior varieties.
 - C. Varieties of cotton, U. of Arkansas, 129-197; Dept. B., 1111; One variety communities; Duggar, p. 282-299; N. C. B. 108; Brown, p. 40-73, Excellent.
 - D. Charts on cotton, U. S. D. A., Washington, D. C.

3. Securing seed.
 - A. T. E. Smith, Fm. Cr. Ch. 3-7; F. B., 1232, Seed marketing hints; Va. Ext. B., 86, p. 6.
 - B. Arkansas, Cir. 98; Seed selection on the farm Ga. B. 241; Taylor, p. 346.
 - C. Duggar, p. 247-265; Dept. B. 668; Nurse Planting select cotton seed; Brown, p. 245-246; Dept. Cir. 200, Improvements in production.
 - D. Two cotton bolls and seed, U. S. D. A. Crop Acclimatization and Adapt. Invest.

4. Selecting the land.
 - A. Va. Ext. B., 86, 219.
 - B. Brown, p. 212-237 - Excellent discussion.

COTTON

- C. Ky. Ext. B., 161.
- D.
5. Preparing the seed bed.
- A. Collings, p. 55-60.
- B. Dept. B., 1219, Delinting and recleaning - Excellent information.
- C. Duggar, p. 341-350; Hinkle, p. 170-177; Ky. Ext. Cir. 161; Brown, p. 238-242; Taylor, p. 340-341.
- D.
6. Securing and applying fertilizer.
- A. T. E. Smith, Fm. Cr., Ch. 4; Collings, Ch. 9; Va. Ext. B. 86, p. 9-10; S. C. Exp. B. 211.
- B. The cotton situation, 1921 Year Book, p. 348-363; F. B. 1121; S. C. Exp. B. 219.
- C. Va. Exp. B. 221, 229; Cotton fertilizing Exp; N. C. B227; 195, 139, 230; Hinkle, p. 13-27, 198-298; Brown, p. 19-210; Taylor, p. 341-344.
- D. Chart Soil Imp. Committee, Southern Fert. Asso., Atlanta, Ga.
7. Planting.
- A. T. E. Smith, Fm. Cr., p. 60-73; Dept. B., 1473 Spacing.
- B. Collings, p. 63-64; Brown, p. 242-245.
- C. Spacing Miss. B. 212; Dept. Cir., 381, Cotton planter attachment.
- D.
8. Cultivating.
- A. T. E. Smith, Fm. Cr., p. 73-78; Va. Ext. B. 86, p. 10-11.
- B. Duggar, p. 350-360; Hinkle, p. 182-197.

C. Terracing, F. B., 1386; Brown, p. 250-258.

D.

9. Chopping.

A. T. E. Smith, Fm. Cr., p. 73-78.

B. Dept. B., 1473, Spacing; Brown, p. 246-250.

C.

D.

10. Controlling diseases.

A. F. B., 1187; F. B., 648, Root-knot.

B. Collings, Ch. 10; Brown, p. 259-289, Excellent description.

C. Voc. Ed. Ser, Fm. Cr., p. 97-102 Anthracnose; F. B., 555 Taylor, p. 346-348.

D.

11. Controlling insects.

A. Duggar, p. 392-401; F. B., 1319; Brown, P. 291-322-Excellent; T. E. Smith, Fm. Cr., p. 83-96; F. B., 1329 - Boll-Weevil; Va. Ext. B. p. 13-14.

B. F. B., 501; Collings Ch. 11; Dept. B., 1397 - Bollworm; Dept. B., 926 - Boll Weevil.

C. Cotton dusting machinery - F. B., 1319; Red Spider - F. B. 831; S. G. B. 185.

D. Dept. Cir. 361, Cotton hopper or flea; Dept. Cir. 274 - Dusting; Taylor, p. 348-353.

12. Making infestation count.

A.

B.

C. Clemson Information card No. 27.

D.

COTTON

13. Side dressing.

A.

B. Tyalor, p. 61.

C.

D.

14. Picking.

A. T. E. Smith, Fm. Cr., p. 116-120; Va. Ext. B. 86, p. 11-12.

B. Collings, Ch. 12; Brown, p. 323-333.

C.

D.

15. Ginning.

A. F. B., 1465; Dept. Cir., 205, Cotton seed mixing.

B. Collings, Ch. 13; Duggar, p. 300-314; Brown, p. 334-350.

C. F. B., 764, Ginning information; Dept. B., 288.

D.

16. Classes and grades of cotton.

A. Dept. Cir. 278; Dept. B. 733.

B. Brown, p. 351-370; Dept. B., 591, Tests for grade; Dept. B., 990, 1135.

C. Dept. Cir., 175, Linters; Dept. B., 1488, Manufacturing tests.

D.

17. Marketing.

A. F. B., 802, Classification; 764, Voc. Agri. Ser. Ch. 9; F. B., 1144, Cooperative marketing.

- B. U. S. D. A. Cir. 278; Commercial classification; Collings, Ch. 15.
 - C. The cotton situation, 1921 Year Book, p. 370-406; Year Book Separate, 605; Dept. B., 1444, Good statistical information; 1392, Losses from selling in seed, F. B., 775; Dept. B. 1392, Cooperative marketing; Dept. B. 990, Test of cotton standards; Brown, p. 371-394; Dept. B. 476, 457.
18. Growing certified seed.
- A. Dept. B., 1052, p. 23.
 - B.
 - C.
 - D.
19. Selling certified seed.
- A. F. B., 1384; F. B., 1111; Dept. B., 1056.
 - B. T. E. Smith, Fm. Cr., p. 34-36, 108-114.
 - C. Ga. Sta. B. 241.
 - D.
20. Improving quality by selection and ginning.
- A. F. B., 1384; F. B., 1111.
 - B. Brown, p. 75-150, 151-177.
 - C.
 - D.
21. By-products.
- A.
 - B. Dept. B., 948, Composition of cotton seed - Very technical.
 - C. Brown, p. 428-450.
 - D.

COTTON

22. Storing.

- A. Separate, 763.
- B. Dept. B., 801, Construction and fire protection of warehouses.
- C. Dept. B., 277, 216.
- D.

23. Rotation.

- A.
- B. Taylor, p. 344-346.
- C. F. B., 1015.
- D.

24. Keeping records.

- A. F. B., 511, Bookkeeping.
- B. Dept. B., 896, Cost of production of cotton 1920.
- C. Dept. Cir., 340.
- D.

PEANUTS

1. Determining the acreage to grow.
2. Selecting the land.
3. Preparing the seed bed.
4. Liming the soil.
5. Fertilizing the crop.
6. Selecting the variety.
7. Securing good seed.
8. Testing seed.
9. Planting seed.
10. Cultivating.
11. Controlling insects and diseases.
12. Hoeing, thinning and replanting.
13. Hill selection of seed.
14. Harvesting.
15. Curing, picking and cleaning.
16. Storing seed.
17. Marketing peanuts.
18. By-products.
19. Keeping records.

PEANUTS**General Reference for Growing Peanuts**

1. T. E. Smith,
Fm. Cr. Farm Crops - T. E. Smith.
 Turner E. Smith Co.
2. H. & W. Production of Field Crops - Hutcheson & Wolfe.
 McGraw, Hill Book Co.

Special Reference for Growing Peanuts

1. Hinkle Fertility and Crop Production - S. F. Hinkle
 S. F. Hinkle Co.

PEANUTS

1. Determining the acreage to grow.

- A. Va. Ext. B., 54, p. 5-6; F. B., 1127, p. 3-4; Separate 784.
- B. Separate, 931, p. 403-411; Miss. Exp. B. 208; S. C. Ext. B. 45.
- C. Agri. outlook for 1927, p. 35; Year Book, Separate 748, p. 15.
- D.

2. Selecting the land.

- A. F. B., 1127, p. 5; Va. Ext. B. 54, p. 6-7.
- B. T. E. Smith, Fm. Cr., p. 279-286.
- C.
- D.

3. Preparing seed bed.

- A. Va. Exp. B. 218, p. 7-8; Va. Ext. B. 54, p. 10; F. B. 1127, p. 5.
- B. T. E. Smith, Fm. Cr., p. 293; Hinkle, p. 170-177.
- C.
- D.

4. Liming the soil.

- A. Va. Exp. B. 218, p. 9-10; Va. Ext. B. 54, p. 11-12; F. B. 921.
- B. Hinkle, p. 45-67.
- C. Va. Exp. B. 229 - Good experiment showing the effect of lime.
- D.

PEANUTS

5. Fertilizing the crop.

- A. Va. Exp. B. 218, p. 8-9; Va. Ext. B. 54, p. 11-12; F. B. 1127, p. 6-7; Va. Exp. B. 221, p. 47.
- B. T. E. Smith, Ser. Fm. Cr. p. 294; Hinkle, p. 13-27, 198-297.
- C. Va. Exp. B. 229, Good experiment showing the effect of fertilizer.
- D.

6. Selecting the variety.

- A. Va. Exp. B. 218, p. 5-6; F. B., 1127, p. 28-30; Va. Ext. B. 54, p. 7-8.
- B. T. E. Smith, Fm. Cr. p. 290-292.
- C.
- D.

7. Securing good seed.

- A. Va. Exp. B. 218, p. 7; Va. Ext. B. 54, p. 9; F. B., 1127, p. 7-9.
- B. T. E. Smith, Fm. Cr. p. 289-290; H. & W., p. 392.
- C.
- D.

8. Testing seed.

- A. F. B., 1127, p. 7-11.
- B.
- C.
- D.

9. Planting seed.

- A. Va. Exp. B. 218, p. 8; Va. Ext. B. 54, p. 13-15; F. B. 1127, p. 9-13.

B. T. E. Smith, Fm. Cr., p. 294-295; H. & W., p. 393-394.

C. Dept. B., 1478, Distance of planting.

D.

10. Cultivating.

A. Va. Exp. B. 218, p. 11-12; Va. Ext. B. 54, p. 7-8; F. B. 1127, p. 13-15.

B. T. E. Smith, Fm. Cr. p. 296; Hinkle, p. 182-197.

C.

D.

11. Controlling insects and diseases.

A. Va. Exp. B. 218.

B. Mont. p. 447.

C.

D.

12. Hoeing, thinning and replanting.

A. Va. Exp. B. 218, p. 11-12.

B.

C.

D.

13. Hill selection of seed.

A.

B.

C.

D.

PEANUTS

14. Harvesting.

- A. Va. Exp. B. 218, p. 12; Va. Ext. B. 54, p. 17-19;
F. B. 1127, p. 15-16.
- B. T. E. Smith, Fm. Cr. p. 299-303; H. & W. p. 395.
- C. U. S. D. A. Cir. 81, Year Book Separate, 748, p. 4-6.
- D.

15. Curing, picking and cleaning.

- A. Va. Ext. B. 54, p. 19-21; F. B., 1127, p. 16-22.
- B. T. E. Smith, Fm. Cr. p. 303-305; H. & W. p. 396.
- C. Year Book Separate 784, p. 5-8.
- D.

16. Storing seed.

- A. F. B. 1127, p. 22-23.
- B. T. E. Smith, Fm. Cr. p. 307.
- C.
- D.

17. Marketing.

- A. F. B. 1122, p. 23-25; Dept. B. 1401.
- B. T. E. Smith, Fm. Cr. p. 305-309.
- C. F. B. 1144, Cooperative marketing.
- D.

18. By-products.

- A.
- B. Dept. B. 1096.
- C.
- D.

PEANUTS

19. Keeping records.

A. Va. Exp. B. 218, p. 15.

B. F. B. 1139, Analyzing the farm business.

C. F. B. 527, Cost accounting.

D.

SOYBEANS

1. Determining the acreage.
2. Selecting the variety.
3. Securing good seed.
4. Inoculating the seed.
5. Preparing the land.
6. Liming.
7. Fertilizing.
8. Sowing the seed.
9. Cultivating.
10. Controlling the pests.
11. Harvesting for hay.
12. Harvesting for seed.
13. Threshing.
14. Production of certified seed.
15. Keeping records.

SOYBEANS**General References for Soybeans.**

1. H. & W. **Production of Field Crops - Hutcheson & Wolfe.**
 McGraw-Hill Book Co.
2. Cox **Crop Production and Soil Management - Cox**
 John Wiley & Sons.
3. T. E. Smith
 Fm. Cr. **Farm Crops - Turner E. Smith.**
 Turner E. Smith & Co.

Special Reference for Soybeans.

1. Hinkle **Fertility and Crop Production - S. F. Hinkle.**
 S. F. Hinkle.

SOYBEANS

1. Determining the acreage.

- A. F. B. 1520, p. 1-4; Va. Exp. B. 235, p. 3-5; Va. Ext. B. 55, p. 5-6.
- B. T. E. Smith, Fm. Cr. p. 457-459; Cox, p. 380-385, 98-102.
- C. 1917 Year Book; Va. Exp. B. 229, p. 19; Iowa Exp. B. 228; F. B. 931 For cotton belt; Ky. Exp. B. 232. Cir 94; Tenn. Exp. B. 82.
- D.

2. Selecting the variety.

- A. Va. Exp. B. 235, p. 5-9; Va. Ext. B. 55, p. 8; F.B. 1520, p. 4-12, Good.
- B. H. & W., p. 432-433.
- C. Md. B. 201; Ohio Exp. B. 312, p. 588-591; Miss. Exp. B. 227, p. 15-24.
- D.

3. Securing good seed.

- A. Va. Exp. B. 235, p. 9-10.
- B. T. E. Smith, Fm. Cr. p. 463-466; Cox, p. 71-73.
- C.
- D.

4. Inoculating the seed.

- A. Va. Exp. B. 235, p. 16-17; Va. Ext. B. 55, p. 12-14; F. B. 1520, p. 13-15.
- B. Hinkle, p. 99, 111-116; Wis. Exp. Research B. 72.
- C. Cornell, Ext. B. 2; Wis. Ext. Cir. 194.
- D.

SOYBEANS

5. Preparing the land.

- A. Va. Exp. B. 235, p. 11-12; Va. Ext. B. 55, p. 12-14; V. B. 1520, p. 12.
- B. Cox, p. 382; H. & W. p. 75-76; Hinkle, p. 170-177.
- C. Ky. Exp. B. 232.
- D.

6. Liming.

- A. Va. Exp. B. 235, p. 13; F. B. 921; F. B. 1511, p. 19-23.
- B. Hinkle, p. 45-67.
- C. Ky. Exp. B. 232.
- D.

7. Fertilizing.

- A. Va. Ext. B. 55, p. 12-14; F. B. 1520, p. 12-13.
- B. Hinkle, p. 13-27, 198-297, Fertilizing, p. 68-98 - Manure.
- C.
- D.

8. Sowing the seed.

- A. Va. Exp. B. 235, p. 14-16; Va. Ext. B. 55, p. 15-16; F. B. 1520, p. 15-20, Good.
- B. T. E. Smith, Fm. Cr. p. 461-463; H. & W. p. 436-438.
- C. Ill. Exp. Cir. 225, p. 6-7.
- D.

9. Cultivating.

- A. Va. Exp. B. 235, p. 18-19; Va. Ext. B. 55, p. 16-18; F. B. 1520, p. 20-21.
- B. T. E. Smith, Fm. Cr. p. 466-467; Hinkle, p. 182-197.

SOYBEANS

C. Ill. Exp. Cir. 225, p. 8.

D.

10. Controlling the pest.

A. F. B. 983; F. B. 1520, p. 25-33, Good.

B.

C. Miss. Exp. B. 227, p. 35-37.

D.

11. Harvesting the hay.

A. Va. Exp. B. 235, p. 24-26; Va. Ext. B. 55, p. 23-25;
F. B. 973, p. 26-28.

B. T. E. Smith, Fm. Cr. p. 468-472; Miss Exp. B. 227.

C. Ill. Exp. Cir. 255, p. 9-11; Miss Exp. B. 227, p. 25-28.

D.

12. Harvesting for seed.

A. F. B. 886; Va. Exp. B. 235, p. 28-29; Va. Ext. B. 55, p.
18-19.

B. H. & W., p. 439.

C. F. B. 973, p. 19-24; Miss Exp. B. 227.

D.

13. Threshing.

A. Va. Exp. B. 235, p. 31-32.

B.

C.

D.

14. Production of Certified seed.

A.

B. Va. Dept. of Agri and Immigration, Leaflet #9, Richmond.

C.

D.

15. Keeping records.

A. F. B. 511, Farm bookkeeping.

B.

C. Dept. Cir. 340.

D.

Analysis same as Soybeans.

Cow-peas.

A. Va. Ext. B. 55, p. 10 Varieties; F. B. 1148, Culture;
F. B. 1153, utilization.

B.

C. Kansas Exp. B. 160; N. C. Exp. B. 241; F. B. 1308,
Marketing.

D.

ALFALFA

1. Deciding upon the acreage and field.
2. Selecting the variety.
3. Securing good seed.
4. Inoculating and preparing seed.
5. Preparing the seed bed.
6. Fertilizing and liming the soil.
7. Sowing the seed.
8. Cultivation.
9. Controlling insects, pests and diseases.
10. Harvesting.
11. Disposing of the crop.
12. Keeping records.

ALFALFA**General References for Alfalfa.**

1. Cox Crop Production and Soil Management - Cox
 John Wiley & Son.
2. H. & W. Production of Field Crops - Hutcheson & Wolfe.
 McGraw-Hill Book Co.
3. Mos. Crops and Soils - Mosier.
 Rand McNally Co.
4. Mont. Productive Farm Crops - Montgomery.
 Lippincott Co.
5. T. E. Smith Farm Crops - Turner E. Smith.
 Turner E. Smith Co.

Special Reference for Alfalfa.

1. Hinkle Fertility and Crop Production - S. F. Hinkle.
 F. S. Hinkle.

ALFALFA

1. Deciding upon the acreage and field.

- A. F. B., 1283, p. 1-3, 7-8; Excellent information; F. B. 1021; F. B. 1511, p. 1-12.
- B. T. E. Smith, Fm. Cr. p. 475; Cox, p. 408, 415, 98-102; Sampson, p. 157.
- C. Md. Exp. B. 228, p. 203-207; Good table showing the life of alfalfa on different kinds of soil; Separate 916, Hay.
- D.

2. Selecting the variety.

- A. F. B. 1467, Varieties; Va. Exp. B. 247, p. 10, Variety test at Williamsburg.
- B. H. & W., p. 423-427, 41-54; Cox, p. 71-72; F. B. 1283, p. 45, How to grow.
- C. F. B. 757, p. 23-24, Description of varieties; F. B. 1511, p. 8.
- D.

3. Securing good seed.

- A. F. B. 1283, p. 5-6; F. B. 1511, p. 12; Va. Crop Improvement Asso. B.
- B. H. & W., p. 427-429, 430, 55-65; Cox, p. 73; Mont. p. 14; Mos. p. 309.
- C. Alfalfa seed production; Cox, p. 422-426; Dept. B. 812, Seed characteristics; Cox, p. 309.
- D.

4. Inoculating and preparing seed.

- A. Va. Exp. B. 247, p. 9; Va. Ext. B. 97, p. 41; Wis. Exp. Research B. 72.
- B. T. E. Smith, Fm. Cr. p. 480; H. & W., p. 429; Cox, p. 417-420; Mos. p. 309.

ALFALFA

- C. Wis. Ext. Cir. 194; Hinkle, p. 99-100, 111-116; Mont. p. 390-391.
- D. Alfalfa seed, Chalcis Fly, U. S. D. A., Washington, D. C.
5. Preparing the seed bed.
- A. F. B. 1283, p. 8; Va. Exp. B. 207, Soil requirements - Excellent local data.
- B. T. E. Smith, Fm. Cr., p. 477-480; H. & W., p. 66-76; Cox, p. 415-416.
- C. Hinkle, p. 170-177; Cox, p. 415-416; Mos. P. 308-309; Mont. p. 389.
- D.
6. Fertilizing and liming.
- A. National Lime Asso. B. 103, 111, 112, 113, 176. Cornell reading course, Lesson 148; Va. Exp. B. 221, 237; Va. Exp. B. 247, p. 6-8, Good experimental data on fertilizers, p. 12.
- B. T. E. Smith, Fm. Cr. p. 478-479; H. & W. Ch. 11, p. 13; Mont. p. 389-390.
- C. N. Y Ext. B. 84, p. 10 - Good illustration of the effect of lime; Va. Ext. B. 97, p. 43; Va. Ext. B. 97, p. 45-48 - Gives formula for commercial fertilizers; F. B. 921; Hinkle p. 68-98, 45-67, 13-27, 198, 297; Cox, p. 415, 417; Mos. p. 309; Mont., p. 389-390.
- D.
7. Sowing the seed.
- A. Va. Exp. B. 247, p. 11.
- B. T. E. Smith, Fm. Cr. p. 482-485; H. & W., Ch. 14; Cox, p. 416-420; Mont. p. 390-391.
- C. Md. Exp. B. 228, p. 216-221; Cox, p. 416-417; Mos. p. 309.
- D.
8. Cultivation.
- A.

ALFALFA

- B. T. E. Smith, Fm. Cr. p. 486; H. & W. Ch. 15; Mont. p. 393-394.
- G. Dept. B. 1087 Alfalfa root studies; Hinkle, p. 182-197; Cox, p. 419; Mos., p. 311-312.

D.

9. Controlling insects, pests and diseases.

- A. Dept. Cir. 297, Belworm; F. B. 982, Green clover worm; F. B. 944, Webworm.
- B. Mont. p. 395-396; H. & W. Ch. 26; Dept. B. 964 Garden Flea Hopper; F. B. 637, Grasshopper.
- C. Alfalfa caterpillar - F. B. 1094; F. B. 1021 - Alfalfa on corn belt; F. B. 982, Green clover worm; F. B. 944, Garden weed worm; F. B. 636, Chasleis Fly; Dept. B. 759, Leaf spot diseases; Mos. p. 312; F. B. 741 Weevil.

10. Harvesting.

- A. F. B. 1229, p. 5-10; Va. Exp. B. 247, p. 15; F. B. 977, Hay F. B. 838.
- B. T. E. Smith, Fm. Cr. p. 488-489; H. & W. p. 135-143; Cox, p. 420-421; Mont. p. 392.
- C. Md. Exp. B. 228, Good illustration of when to cut; Mos. p. 310; F. B. 987, Labor saving; F. B. 1009, Hay stackers; F. B. 987; F. B. 943 Haymaking.

11. Disposing of the crop.

- A. F. B. 1229, Excellent for utilization of alfalfa; Mont. p. 394-395.
- B. Dept. B. 977, Marketing hay; 978, 979, 980 - Inspection and grading.
- C. Dept. B. 873, Shrinkage of market hay; Mos. p. 310; Cox, p. 408; F. B. 1265, Business methods of marketing hay; Va. Exp. B. 247, Experiments; F. B. 508; Kansas Exp. Tech. B. 15.

12. Keeping records.

- A. F. B. 511, Farm Bookkeeping.

B. Dept. Cir. 340 - Cost of producing field crops.

C.

D.

CLOVER

1. Deciding acreage and field.
2. Selecting a variety.
3. Securing good seed.
4. Preparing the seed bed.
5. Preparing the seed.
6. Sowing the seed.
7. Controlling pests.
8. Fertilizing and liming.
9. Harvesting and disposing of crop.
10. Keeping records.

CLOVER**General References for Clover.**

1. H. & W. **Production of Field Crops - Hutcheson & Wolfe.
McGraw-Hill Book Co.**
2. Cox **Crop Production and Soil Management - Cox
John Wiley & Son.**
3. Mos. **Crops and Soils - Mosier.
Rand McNally Co.**
4. Mont. **Productive Farm Crops - Montgomery.
Lippincott Co.**

Special Reference for Clover Growing.

1. Hinkle **Fertility and Crop Production - S. F. Hinkle.
S. F. Hinkle Co.**

CLOVER.

1. Deciding acreage and field.

- A. F. B. 1365.
- B. Cox, p. 386, 403, 405.
- C. Ill. Cir. 36X.
- D.

2. Selecting the variety.

- A.
- B. H. & W. p. 41-54.
- C.
- D.

3. Securing good seed.

- A.
- B. H. & W., p. 55-65; Cox, p. 388; Mos. p. 288.
- C. Mont. 401-405; Ohio Monthly B., Vol. 6, No. 1 and 2, p. 18-24.
- D.

4. Preparing the seed bed.

- A. T. E. Smith, Fm. Cr. p. 539-548.
- B. Cox, p. 390-391; Mont. p. 401-402; Hinkle, p. 170-177.
- C. H. & W. p. 66-76; Wis. Exp. Research B. 54, Inoculating.
- D.

5. Preparing the seed.

- A.
- B. Hinkle, p. 99, 111-114; H. & W., p. 66-76.
- C. Inoculating the seed - Va. Ext. B. 97, p. 47.
- D.

6. Sowing clover seed.

A.

B. Cox, p. 391-392; Mont. p. 401-402. Mos., p. 289-290.

C.

D.

7. Controlling pests.

A. F. B. 1484, Leaf Weevil; Cornell Ext. B. 20, Insects.

B. Dept. B. 1336, Green clover worm; Dept. B. 922, Clover leaf weevil.

C. Cox, p. 398-399. Mos., p. 294; Mont. p. 405-406; Ohio Monthly B. Vol. 3, No. 8, August 1918, p. 239.

D.

8. Fertilizing and liming.

A. F. B. 921, Liming.

B. Cox, p. 389-390; Hinkle, p. 45-67, 68-98, 13-27, 198-297; 273-276.

C. Testing for acidity; Cornell Reading Course Lesson 148; Mos., p. 287-288. Mont. p. 398-402.

D.

9. Harvesting and disposing of crop.

A.

B. Cox, p. 395; Mos. p. 293-294; Mont., p. 484.

C.

C.

10. Keeping records.

CLOVER.

A. F. B. 511, Farm Bookkeeping.

B. F. B. 572, Cost accounting.

C.

D.

RED CLOVER

1. Deciding acreage and field.
2. Selecting a variety.
3. Securing good seed.
4. Preparing the seed bed.
5. Preparing the seed.
6. Sowing the seed.
7. Controlling the pests.
8. Fertilizing and liming.
9. Harvesting and disposing of crop.
10. Keeping records.

RED CLOVER**General References for Red Clover.**

1. H. & W. **Production of Field Crops - Hutcheson & Wolfe.
McGraw-Hill Book Co.**
2. Cox **Crop Production and Soil Management - Cox.
John Wiley & Son.**
3. Mos. **Crops and Soils - Mosier.
Rand McNally Co.**
4. Mont. **Productive Farm Crops - Montgomery.
Lippincott Co.**

Special Reference for Red Clover.

1. Hinkle **Fertility and Crop Production - S. F. Hinkle.
S. F. Hinkle Co.**

RED CLOVER

1. Deciding acreage and field.
 - A. F. B. 1339.
 - B. Mont. p, 398.
 - C. Hinkle, p. 101.
 - D.

2. Selecting a variety.
 - A.
 - B. H. & W., p. 413, 41-54; Mont. p. 400.
 - C.
 - D.

3. Securing good seed.
 - A. Dept. B. 289, Seed Production; Va. Crop Improvement Asso.
 - B. H. & W., p. 55-65; Mont. p. 401-405; Cox, p. 388; Mos. p. 288.
 - C. Ohio Exp. Monthly B. Vol. 9, No. 11-12, Nov, and Dec., p. 187-191.
 - D.

4. Preparing the seed bed.
 - A. H. & W., p. 66-76.
 - B. Hinkle, p. 170-177.
 - C.
 - D.

5. Preparing the seed.

RED CLOVER

- A.
 - B. See clover
 - C.
 - D.
6. Sowing the seed.
- A.
 - B. Mont., p. 401-402.
 - C.
 - D.
7. Controlling the pest.
- A. F. B. 1484, leaf weevil; F. B. 1339.
 - B. Cornell Ext. B. 20.
 - C.
 - D.
8. Fertilizing and liming.
- A. F. B. 921; F. B. 1365, Clover failure.
 - B. Mont. p. 402; Hinkle, p. 45-67, 68-98, 13-27, 198-297, 273-276.
 - C.
 - D. Charts on cost, Vale and need of lime - National Lime Asso. 918 G. St. N. W., Washington, D. C.
9. Harvesting and disposing of crop.
- A.
 - B. See alfalfa.
 - C.
 - D.

RED CLOVER

10. Keeping records.

A. F. B. 511, Farm Bookkeeping.

B.

C.

D.

SWEET CLOVER

1. Deciding on the acreage and field.
2. Securing good seed.
3. Fertilizing and liming.
4. Preparing the seed bed.
5. Preparing the seed.
6. Sowing the seed.
7. Controlling pest.
8. Harvesting.
9. Disposing of the crop.
10. Keeping records.

SWEET CLOVER**General References for Sweet Clover.**

1. H. & W. **Production of Field Crops - Hutcheson & Wolfe.
McGraw-Hill Book Co.**
2. Cox **Crop Production and Soil Management - Cox
John Wiley & Sons.**
3. Mos. **Crops and Soils - Mosier.
Rand McNally Co.**
4. Mont. **Productive Farm Crops - E. G. Montgomery.
Lippincott Co.**
5. Sampson **Range and Pasture Management - A. W. Sampson.
John Wiley & Sons.**

Special Reference for Sweet Clover Growing.

1. Hinkle **Fertility and Crop Production - S. F. Hinkle.
S. F. Hinkle Co.**

SWEET CLOVER

1. Deciding on acreage and field.
 - A. F. B. 797; F. B. 1511, p. 13-16; F. B. 820.
 - B. Hinkle, p. 100-101; Cox, p. 98-102, 429, 436.
 - C. Ill. Cir. 29X; Sampson, p. 155; F. B. 485; Mich. Special B. 113; F. B. 1005,
 - D.

2. Securing good seed.
 - A. F. B. 836, Harvesting and Threshing; F. B. 797, p. 19-21.
 - B. Dept. B. 844, Very good scientific discussion; Cox, p. 429-430.
 - C. Mos. p. 303-304; Mont. p. 412; Mich. Exp. Special B. 130.
 - D.

3. Fertilizing and liming.
 - A. F. B. 921; Va. Exp. B. 257.
 - B. Hinkle, p. 13-27, 45-98, 198-297; Cox, p. 431-432.
 - C. Mos. p. 302; Mont. p. 383; Cornell Reading Course Lesson 184.
 - D.

4. Preparing the seed bed.
 - A. F. B. 797, p. 21-22.
 - B. Cox, p. 431-432; Mos., p. 303-304; 87-88; Mont. 381, 413-414.
 - C. Ky. Ext. Cir. 87, p. 4.
 - D.

5. Preparing the seed.
 - A. F. B. 797, p. 23-24, 27-29.

SWEET CLOVER

- B. Mos., p. 304, 87-88; Cox, p. 432; Mont. p. 381, 413, 414.
 - C. Ky. Exp. Cir. 87, p. 5.
 - D.
6. Sowing the seed.
- A. F. B. 797, p. 22-27.
 - B. Cox, p. 432-433; Mos. p. 304; Mont., p. 412.
 - C.
 - D.
7. Controlling pests.
- A.
 - B. Mont., p. 412; Mos., p. 304.
 - C.
 - D.
8. Harvesting.
- A. F. B. 836, Seed crop.
 - B. Cox, p. 433-435; Mos. p. 304-305; Mont. p. 413.
 - C. Ky. Exp. Cir., 87, p. 6.
 - D.
9. Disposing of the crop.
- A. Dept. B. 979; F. B. 820 Utilization.
 - B. Cox, p. 435-436; Mos. p. 305; Mont. p. 413.
 - C. F. B. 1250 Green manure; Ill Exp. B. 233, Nitrate Production.
 - D.
10. Keeping records.

SWEET CLOVER

A.

B. Cox, p. 429.

C. Ky. Exp. Cir. 87, p. 6.

D.

OTHER CLOVERS CONTINUED.

For complete list of jobs, see The Clover Enterprises. Jobs are not repeated because the principles of culture are essentially the same.

1. Crimson Clover.

A. F. B. 1142; Growing; 1411, Seed production; 550, Growing.

B. Mont. p. 414-415; H. & W., p. 416; Cox, p. 397.

C. Clover Failures, F. B. 1365; Hinkle, p. 102; F. B. 579.

D.

2. Alsike Clover.

A. F. B. 1151; F. B. 1411, Seed production.

B. Mont. p. 406-408; H. & W., p. 413-415; Cox, p. 395.

C. Clover Failures, F. B. 1365.

D.

3. White

A.

B. H. & W., p. 415; Cox, p. 396; Mont., p. 408-409.

C. Sampson, p. 153.

D.

4. Lespedeza.

A. F. B. 1143.

B. H. & W., p. 417; Mont., p. 417; Hinkle, p. 103; Sampson, p. 164.

C. Dept. Cir. 317, Korean Lespedeza - new forage crops Tenn Expt. B. 123.

D.

5. Bur Clover.

- A. F. B. 693.
- B. Va. Ext. B. 97, p. 10-11; Hinkle, p. 102.
- C. Sampson, p. 155-157.
- D.

6. Mammoth or Sapling.

- A. F. B. 1339, p. 23-24.
- B. Va. Ext. B. 97, p. 13.
- C.
- D.

7. Heebam.

- A. U. S. D. A. Dept. Cir. 169.
- B. Va. Ext. B. 97, p. 12.
- C. Iowa Cir. 76.
- D.

8. Hairy-Vetch.

- A. F. B. 967, Purple Vetch, F. B. 515; F. B. 529, For South Atlantic States.
- B. Dept. B. 876, Seed Production; Hinkle, p. 104.
- C. Sampson, p. 159-163; Mich. Exp. B. 50.
- D.

9. Velvet Beans.

- A. F. B. 962.
- B. Sampson, p. 163-164.
- C.
- D.

PASTURES - Temporary and Permanent

1. Determining acreage.
2. Preparing the pasture.
3. Obtaining the seed.
4. Fertilizing and liming the pasture.
5. Seeding.
6. Managing the pasture.

PASTURES

General References for Pasture.

1. Sampson Range and Pasture Management - A. W. Sampson.
John Wiley & Son.
2. Cox Crop Production and Soil Management - Cox.
John Wiley & Sons.
3. H. & W. Production of Field Crops - Hutcheson & Wolfe.
McGraw-Hill Book Co.
4. Mont. Productive Farm Crops - Montgomery.
Lippincott Co.

Special Reference for Pasture.

1. Hinkle Fertility and Crop Production - S. F. Hinkle.
S. F. Hinkle, Co.

PASTURE

1. Determining acreage and length of pasture.

- A. Va. Exp. B. 204.
- B. Mont. p. 319-321.
- C. Dept. B. 626; Pa. Ext. Cir. 90.
- D.

2. Preparing the pasture ground.

- A.
- B. Cox, p. 440; Mont. p. 338-340.
- C.
- D.

3. Obtaining the seed.

- A. F. B. 382, Adulterations of seed.
- B. Mont., p. 322-326; Cox, p. 437-440.
- C.
- D.

4. Fertilizing and liming pasture.

- A. F. B. 921.
- B. H. & W., p. 203-204; Hinkle, p. 13-27, 197-298.
- C. Cornell Reading Course, Lesson 148.
- D.

5. Seeding.

- A.
- B. H. & W., p. 200-203; Mont., p. 326-336; Cox, p. 440.
- C.
- D.

PASTURE

6. Managing the pasture.

A.

B. H. & W., p. 198-200; Sampson, p. 86-130.

C. H. & W., Ch. 24, Weeds; Cox, Ch. 9, Weeds, p. 441, Care; Sampson, p. 328-336; Pasture inspection; Sampson, p. 360-390, Good outline of grazing course; Pa. Ext. Cir. 90.

D.

GRASSES

1. Kentucky Blue.
 - A. Va. Exp. B. 204; Va. Exp. Report, 1917-18; Va. Exp. B. 180, 193.
 - B. Va. Ext. B., 97, p. 20; Sampson, p. 132-134; F. B. 1254, p. 8-10.
 - C. Hinkle, p. 195, Cultural treatments; Ky. Exp. B. 247.
 - D.

2. Canada Blue.
 - A. F. B. 402; F. B. 1254, p. 17, Identifying.
 - B. Va. Ext. B. 97, p. 20.
 - C. Sampson, p. 135.
 - D.

3. Bermuda (Wire Grass).
 - A. F. B. 814; F. B. 945, Eradication of Bermuda.
 - B. Va. Ext. B. 97, p. 19; Sampson, p. 135-137.
 - C. F. B. 1254, p. 11-12, Identifying.
 - D.

4. Rhode Island Bent.
 - A. F. B. 1254, Identifying.
 - B. Va. Ext. B. 97, p. 19.
 - C.
 - D.

5. Meadow Ficus.
 - A. F. B. 1254, p. 20.
 - B. Va. Ext. B. 97, p. 18.

C. Sampson, p. 147.

D.

6. Creeping Bent.

A.

B. Dept. B. 692.

C.

D.

7. Sheep Fiscue.

A.

B.

C.

D.

8. Brome.

A. U. S. D.A. Plant Ind. B. 111.

B. Va. Ext. B., 97, p. 21.

C.

D.

9. Carpet.

A. F. B., 1130, F. B. 1254.

B. Va. Ext. B. 97, p. 21.

C.

D.

10. Red Top (Herd's grass)

A.

B. Sampson, p. 139-140.

C.

D.

11. Johnson.

A. F. B. 1254; U. S. D. A. Cir. 43; F. B. 1476.

B. Va. Ext. B. 97, p. 22; Sampson, p. 144.

C.

D.

12. Tall Meadow Oat.

A. F. B. 1254, p. 16-17.

B. Va. Ext. B. 97, p. 22.

C. Sampson, p. 146.

D.

13. Orchard.

A. F. B., 1254, p. 13-15.

B. Va. Ext. B. 97, p. 22; Sampson, p. 142-143.

C.

D.

14. Italian Rye.

A. F. B. 1254; U. S. D. A. Cir. 44.

B. Va. Ext. B. 97, p. 23; Sampson, p. 143-144.

C.

D.

15. Perennial Rye.

A. F. B. 1254; U. S. D. A. Cir. 42.

B. Va. Ext. B. 97, p. 23; Sampson, p. 143-144.

GRASSES

C.

D.

16. Sudan Grass.

A. Va. Exp. B. 212; F. B. 1126; F. B. 605; F. B. 1254.

B. Va. Ext. B. 97, p. 24; Sampson, 144-146.

C. Md. Exp. B. 194.

D.

17. Sweet Vernal.

A.

B. Va. Ext. B. 97, p. 24.

C.

D.

18. Timothy.

A. F. B. 990; F. B. 1254, Identifying.

B. Dept. B. 1450; Sampson, p. 140-142.

C.

D.

19. Rape.

A.

B.

C.

D.

20. Weeds.

A.

B. Georgia - Manual of Weeds, Ada, Georgia.

GRASSES

G. L. H. Bailey, Excellent reference on most all weeds.

D.

Large Fruits

APPLES

of Orcharding.

1. ~~Determining the extent and advisability of commercial orcharding.~~
2. Selecting ~~sight.~~ *site*
3. Securing capital.
4. Choosing varieties.
5. Improving land before planting.
6. Buying trees.
7. Laying out the orchard.
8. Setting trees.
9. Fertilizing.
10. Cultivating.
11. Growing soil improvement crops.
12. Caring for young trees.
13. Pruning young trees.
14. Pruning, grafting and budding.
15. Controlling insects.
16. Controlling diseases.
17. Intercropping and thinning.
18. Securing equipment and supplies for picking, packing and spraying.
19. Picking ~~apples.~~ *Fruit.*
20. Grading and packing.
21. Storing.
22. Marketing.
23. Renovating.
24. Protecting from rodents.
25. Keeping records.

General References for Apples

1. S. & M. Horticulture - H.P. Stuckey & C.B. Mathews
Smith Hammond & Co.
2. Sears Productive Orchardng - F. C. Sears.
Lippincotts.
3. Waugh The Americam Apple Orchard - Waugh.
Orange Judd Co.
4. Fraser Merecan Fruits - A. Fraser.
Orange Judd Co.

Special References for Apples

1. Hesler & Whetzel Manual of Fruit Diseases - L. R. Hesler & H. H. Whetzel.
2. Roedings Fruit Growers Guide - Geo. C. Roeding, Fresni. Cal.
3. N. D. Exp. Fruit Culter in N. D.
B 188
4. Horticultural Handbook U. of Arkansas, Little Rock, Ark.
D. B. Green June Beetle.

APPLES

1. Determining the extent and advisability of commercial orcharding.

- A. F.B., p. 360, p. 1-3; Va. Ext. B., 40; Va. State Dept. of Agri. B. Apple and Peach Industry in Va.
- B. S. & M. p. 121-128; Yearbook separate, 900 statistics on production.
- C. Va. Ext. B. 40, Status of apple growing in Va. 1918; Dept. B. 1455 excellent information. Growing your own fruit, Int. Harvester Co., Chicago. 1925 Yearbook Horticultural Outlook. Fruit and vegetable production.
- D. Kentucky State Horticultural Society, Henderson, Ky.

2. Selecting the sight.

- A. F.B., 1360, p. 4-8; Va. Ext. B. 41 p. 1-7.
- B. Sears, p. 8-22; S. & W. P. 128-130; D. B., 1189 p. 20-23.
- C. Wis. Ext. B., 41.
- D.

3. Securing capital.

- A. Local banker.
- B. S. & M. p. 123, Sears, p. 63-64.
- C.
- D.

4. Choosing varieties.

- A. Sears, p. 24-43; Va. Ext. B., 91, p. 18-33.
- B. S. & M. p. 136-140; Dept. B. 1189, p. 25-54, 75, Very good general description.
- C. N. Y. Ext. B., 62; Ohio Exp. B. 290; Fraser, p. 42-58. Mich. special B., 161.
- D.

APPLES

5. Improving land before planting.

A. Sears p. 44-46; Va. Ext. B., 41, p. 10-13.

B. S. & M. p. 146-148; Waugh, p. 38. Sears, p. 44-46

C. Separate, 931, p. 186-187.

D. Soil sense. Internation Harvester Co., Harvest Bldg., Chicago, Ill.

6. Buying trees.

A. F.B. 1360 p. 9-13; Va. Ext. B. 41 p. 9-10

B. S. & M. 133-144; Sears p. 38-43; Waugh 197-198.

C. Nursery catalogs.

D.

7. Laying out the orchard.

A. F.B. 1360 p. 20-23; Sears p.46-53; Va. Exp. B. 41, p. 10-13.

B. S. & M. p. 148-152; Waugh p. 39-41.

C. Separate, 931 p. 189-191.

D.

8. Setting trees.

A. F.B. 1360, p. 14-29; Sears, p. 53-63; Va. Ext. B. 41, p. 10-15.

B. S. & M. p. 152-153; Waugh, p. 40. Fraser p. 60-88.

C. Sears, p. 46-45; Separate 931, p. 187-188.

D.

9. Fertilizing.

A. F.B. 1360 p. 33-37

B. Sears p. 100-107; Fraser p. 131-137; Hinkle p. 258-260.
S. & M. p. 162-163; Nal. Lime Asso: Washington, D. C. B. 176.

APPLES

- C. F. B. 921, Liming; Cornell Reading Course, p. 1-18, when to apply
- D. Plant Food and Soil Management. Natl. Fertilizer Assoc., Atlanta, Ga.
10. Cultivating.
- A. F.B. 1360 p. 29-33; Va. Ext. B. 48 p. 4.
- B. Sears, p. 77-90; Waugh p. 53-63 A. & M. p. 156-162.
- C. Fraser, p. 13; Separate, 931, p. 191-194.
- D.
11. Growing soil improvement crops.
- A. Sears, p. 66-76, 108-118.
- B. S. & M. p. 110-162.
- C. Separate 931, p. 194-199.
- D.
12. Caring for young trees.
- A. Va. Exp. B., 41 p. 9-10, 14-15.
- B. S. & M. p. 166-173 Sears p. 53-55; Fraser, p. 89-101.
- C. Waugh p. 121-122; Separate 931 p. 209-215 protection from frost.
13. Pruning young trees.
- A. Va. Ext. B., 38 p. 8-20
- B. Sears p. 119-136. A. & M. p. 172-173; Fraser p. 102-110.
- C. Oregon Exp. B., 139, 146; Ky. Ext. Circ. 92, Pruning; Wis. Ext. Circ., 134.
- D.
14. Pruning, grafting and budding.
- A. F.B., 1360 p. 37-47, Va. Ext. B. 38. Va. Ext. B. 87 propegation.

APPLES

- B. Sears p. 136-141; Separate 931 p. 199-203.
- C. N. Y. Ext. B. 114; Cal. Exp. B. 313, 386 F.B. 1369, Bridge grafting.
- D.

15. Controlling insects.

- A. F.B. 1285 Lime sulphur spray. Va. Ext. B. 68 p. 22-26; 45-46. F. B. 1270.
- B. Sears, p. 142-162; Fraser p. 164-231 S. & M. p. 176-179.
- C. Va. Exp. B. 236 apple scab; B., 248 codlin moth; B. 209 Leaf spot; F.B. 1478, Scab. F.B. 722, Leaf blister mite; F. B. 675, Roundheaded apple tree borer. F.B. 938, Better rot; F. B. 994, Bordeaux; F.B. 1065 Apple tree borer; F.B., 1128, aphids; F.B., 1285 sprays; F.B. 1380, scald; F.B. 1326, Codlin moth.
- D. Spray samples - B.G. Pratt Co., 50 Church St., New York.

16. Controlling diseases.

- A. D.B. 1253, diseases of apples on the market; Va. Exp. B. 245 diseases.
- B. Sears, p. 163-210; 1925 yearbook, p. 463-488; A. & M. p. 179-189.
- C. Frasier, p. 184-198; Va. Exp. B., 236, scab; Ill. Exp. B., 117, bitter-rot; F.B., 938, bitter-rot; F.B., 1160, diseases in storage; F.B. 1478, apple scab. D.B. 1273 Bud Moth; D.B. 1189; D.B. 684 Bitter-rot; D.B. 534 Blotch. Va. Exp. B. 203, Cedar Rust; D.B. 1439, Fish oil an adhesive in spraying. Va. Exp. B. 254, Bitter-rot.

17. Intercropping and thinning trees and fruit.

- A. F.B. 1360, p. 48; Va. Ext. B. 41 p. 14-15, 7;
- B. Sears, ch. 2.
- C.
- D.

APPLES

18. Securing equipment and supplies for picking, packing and spraying.

A. F.B., 1196, containers.

B.

C.

D.

19. Picking apples.

A. Sears, p. 229-244; F.B., 1080 barreled apples.

B. S. & M. p.192-196. Fraser, p. 242-247.

C. Dept. B.1448 picking (maturity of apples in relation to storage)

D.

20. Grading and packing.

A. F.B., 1080, barreled apples for market; F.B., 1457 boxing apples.

B. S. & M. p. 196-197; F.B., 1196, containers; Fraser, p. 247-270.

C. F.B., 1204 1434, baskets; 1457, Boxes; Sears, p. 258-275.

D.

21. Storing.

A. F.B., 852 management; Sears, p.245-257.

B. S. & M. p. 200-204; Waugh 171-174.

C. F.B., 587; Fraser, p. 271-283.

D.

22. Marketing.

A. F.B., 1144; Va. Ext. B., 91, southern markets.

B. S. & M. p. 204-207; Sears, p. 277-286; D.B., 266; Fraser, p. 309-330.

C. D.B., 1362 auctions; D.B., 266; D.B., 667, car-lot shipments. 1925 yearbook, Marketing fruits and vegetables; D.B., 1002.

APPLES

D.

23. Renovating.

A. F.B., 1284

B. Sears, p. 212-228.

C.

D.

24. Protecting from rodent.

A. F.B., 1360 p. 47-48; F.B. 702; Va. Ext. B., 64; F.B., 1397.

B.

C. F.B., 1178, Tree surgery; 1369, Bridge Grafting.

D.

25. Keeping records.

A. Va. Ext. B., 41, p. 7-8; Ext. Division Farm Account Book.

B. D.B., 851, Cost of Production in N.Y.; D.B., 590, Fruit Shipping Organization.

C. Dept. B. 1166, Apple By Products; Dept. B. 1141, Evaporating of Fruit.

D.

PEACHES

1. Determing the acreage.
2. Selecting the sight.
3. Selecting variety.
4. Securing trees.
5. Preparing land.
6. Fertilizing.
7. Laying out the land for planting.
8. Planting the trees.
9. Handling and protecting young trees.
10. Cultivating a young orchard.
11. Pruning young trees.
12. Spraying in dormant season.
13. Spraying in growing season.
14. Budding and grafting.
15. Rejuvenating an old orchard.
16. Controlling insects.
17. Controlling diseases.
18. Picking the fruit.
19. Grading, packing and exhibiting.
20. Marketing.
21. Keeping records.

General Reference for Peaches

1. S. & M. - Horticulture - Stuckey and Mathews.
Smith, Hammond & Co.
2. Gould - Peach - Growing - H. P. Gould.
The Macmillan Co.
3. Fraser - American Fruits - 3. Fraser.
Orange Judd Co.

Special Reference for Peach Growing

1. Hester & Whetzel - Manual of Fruit Diseases.- Hester & Whetzel.
The Macmillan Company.

PEACHES

1. Determining the acreage.
 - A. F.B., 917.
 - B. S. & M. p. 9-12; Gould, p. 13-25.
 - C. Dept. B., 806 Production Estimates.
 - D. Va. Ext. B., 1.

2. Selecting the sight.
 - A. F.B., 917, p. 1-5.
 - B. S. & M. p. 1-9; Dept. B., 1189, p. 20-23; Gould, p. 26-46.
 - C. F.B., 917; Md. Exp. B., 159, Peach Culture; Fraser, p. 424-426.
 - D.

3. Selecting the variety.
 - A. F.B., 918.
 - B. S. & M. p. 15-22, Dept. B., 1189, p. 55-62 Good general description.
 - C. Okla. Exp. B. 84; Gould p. 350-392; Fraser p. 426-427.
 - D.

4. Securing trees.
 - A. F.B., 917, p. 10
 - B. S. & M. p. 22-24
 - C.
 - D.

5. Preparing land.
 - A. F.B., 917
 - B. S. & M. p. 36-41
 - C. Md. Exp. B. 159, Peach Culture.
 - D.

PEACHES

6. Fertilizing land.
 - A. F.B., 638, p. 23-24; F.B., 917 p. 20-23.
 - B. S. & M. p. 46-60; Gould, p. 149-175.
 - C. W. Va. Exp. B., 150, 183; Md. Exp. B., 159.
 - D.
7. Laying out the land for planting.
 - A.
 - B. S. & M. p. 36; Gould p. 79-83.
 - C.
 - D.
8. Planting the trees.
 - A. F.B., 917, p.14-16.
 - B. S. & M. p. 42-44; Gould p. 84-96.
 - C. Fraser p.427-428.
 - D.
9. Handling and protecting young trees.
 - A. F.B., 917 p.8.
 - B. S. & M. p. 24.
 - C.
10. Cultivating a young orchard.
 - A. F.B., 917, p. 16-20; F.B., 1001 p. 13-14.
 - B. S. & M. p. 63-67; Gould p. 101-110, 111-148.
 - C. Md. Exp. B., 159; Fraser p. 432-433; Sears, p. 77-90.
 - D.

PEACHES

11. Pruning young trees.

A. F.B., 917, p.23-32; Va. Ext. B., 38.

B. S. & M. p. 67-75; Gould p. 176-217.

C. Fraser, p. 428-432.

D.

12. Spraying in dormant season.

A. F.B., 908; F.B., 440, Brown rot, scab, curculio; Va. Exp. B. 223, Dusting.

B. U.S.D.A. Bureau of Plant Industry B. 174, Brown rot & scab.

C. Va. Exp. B. 224, Dusting.

D.

13. Spraying in growing season and thinning fruit.

A. Va. Exp. B., 239, Dry-mix sprays; F.B., 917, p. 25-26, Thinning.

B. Va. Exp. B., 210, Lime sulphur sprays F.B., 908.

C. .

D.

14. Budding and grafting.

A. Va. Ext. B., 87; F.B. 917 p. 8-10; F.B., 1369 Bridge grafting.

B. S. & M. p. 26-34.

C.

D.

15. Rejuvenating an old orchard.

A. F.B., 917, p. 33-36.

B.

C.

D.

PEACHES

16. Controlling insects.

- A. Va. Exp. B., 223-224, 236, 239, Exp. data; Gould p. 218-294; Fraser p. 438-441; Dept. B., 1482; F.B. 11280 Aphids; Va. Ext. B., 68, p.26-27, Bores, Bark Beetle Curculio; Black peach aphid, p. 23 san joes scale
- B. S. & M. P. 78-82; Dept. B., 1428, Curculio, Dept. B., 1142, Gipsy Moth.
- C. N. C. Ext. Cir. 153; Ohio Exp. B. 329; Borer; Ga. Entomology B. 43. N.C. Ext. Cir. 144 Curculio, 129; F.B., 1246; Dept. B, 1169 Borer; Va. Exp. B. 234. Dept. B. 774 Plum aphid; Dept. B., 796; Borer. Dept. B., 599 Striped worm
- D.

17. Controlling diseases.

- A. Va. Ext. B. 68, p. 9-10 Yellows, Leaf Curl, Scab, Brown Rot, Shot Hole. F.B., 1527; Gould p 255-279; Fraser p442-444.
- B. S. & M. p. 82-100; Dept. Cir., 216; Hesler & Whetzel P. 269-322.
- C. Bureau of Plant Ind. B., 774; Dept. B. 1428, Brown Rot Scab; Ga. Exp. B. 135, 169; F.B., 1285; F.B., 1435; F.B. 1345, Root-Knot; 1285 Lime, Sulphur; N.C. Ext. Cir. 129; Dept. B. 1205, Dusting. Dept. B., 1104, Internal Browning of the Yellow newtoun; Dept. B., 543, Bacterial Spot.; Dept. Cir. 263, Lubricating Oil Unulsion for San Jose Scab; N. J. Exp. Cir. 81.
- D.

18. Picking the fruit.

- A.
- B. S. & M. p. 103-115; Fraser, p. 445-448.
- C.
- D.

19. Grading, packing and exhibiting.

- A. F.B. 1266p.32-34; Va. Ext. B. 84, Exhibiting.
- B.

PEACHES

C. Dept. B., 1205 Dusting after Harvesting for Plum Curculio.

D.

20. Marketing.

A. F.B., 1266

B. S. & M. p. 103-114; Dept. B. 667 Car-lot shipments.

C.

D.

21. Keeping records.

A. F.B. 511, Farm Bookkeeping.

B. Gould, p. 338-349.

C. Del. Exp. B., 113.

D.

HOME ORCHARD

1. Planning the new home orchard.
- omit* 2. Planning addition to the old home orchard.
3. Selecting the location.
4. Preparing the land for the new orchard.
5. Plowing the orchard.
- omit* 6. Laying out the land for planting.
7. Securing the stock.
8. Pruning.
9. Planting the trees.
10. Protecting young trees.
11. Fertilizing.
12. Cultivating.
13. Treating peach trees for borers.
14. Controlling mice and rabbits.
15. Growing green manure and cover crops.
16. Controlling diseases and insects.
17. Picking.
18. Storing the fruit.
19. Keeping records.

General References for the Home Orchard

1. Sears Productive Orcharding - Sears.
 J. B. Lippincott Co.
2. Waugh American Apple Orchard
 Orange Judd Co.
3. S. & M. Horticulture - Stuckey & Mathewes
 Smith, Hammond & Co.

Special Reference on Home Orchard

1. Va. Ext. B., 87, The Propagation of the Common Fruits of Va.

HOME ORCHARD

1. Planning the new home orchard.
 - A. F.B., 1001, p.3-4; Va. Ext. B., 48.
 - B. Sears, p. 1-7; Waugh, p. 1-3
 - C.
 - D.

2. Planning addition to the old home orchard.
 - A. F.B., 1001 p. 4-5.
 - B.
 - C.
 - D.

3. Selecting the location.
 - A. S. & M. p. 371-372; F.B., 1001, p.6.
 - B. Sears, p. 7-23; Waugh, p. 4-8.
 - C.
 - D.

4. Preparing the land for the new orchard.
 - A. F.B., 1001 p. 9-11.
 - B. Sears, 44-49; Waugh, p. 38; S. & M. p. 36-44.
 - C.
 - D.

5. Plowing the orchard.
 - A. F.B., 917
 - B. S. & M. p. 36-42
 - C.
 - D.

HOME ORCHARD

6. Laying out the land for planting.

A. Va. Ext. B., 41.

B. Sears, p. 47-49; Waugh p. 39-41.

C.

D.

7. Securing the stock.

A. S. & M. p. 372-379; F.B., 1001, p. 6-9, 25.

B. Sears, p. 38-43; Waugh, p. 197-198; Voc. Agri. Ser. (H), p. 26-34.

C.

D.

8. Pruning and training.

A. Va. Ext. B., 38; F.B., 1001, p. 15-22.

B. Sears, p. 135-136; Waugh p. 85-91.

C.

D.

9. Planting the trees.

A. S. & M. p.379-380; F.B. 1001, p. 9-13.

B. Sears, p. 49-53; Voc. Agri. Ser. p. 379.

C. Wis. Ext. Cir., 1111.

D.

10. Protecting young trees.

A.

B. Sears, p. 53-55; Waugh p. 121-122.

HOME ORCHARD

C.

D.

11. Fertilizing.

A. F.B., 1001, p. 14-15

B. S. & M. p. 381.

C.

D.

12. Cultivating.

A. F.B., 1001, p. 13-14.

B. Sears, p.77, 90; Waugh, p. 53-63

C.

D.

13. Treating peach trees for borers.

A. Va. Ext. B. 68, p. 26-27; F.B. 1246.

B. S. & M. p, 78-82.

C. Dept. B., 796, Dept. B. 1169.

D.

14. Controlling mice and rabbits.

A. Va. Ext. B., 64; F.B., 702; F.B., 670; Va. Ext. B., 35.

B.

C. Mo. Exp. Circ., 151.

D.

HOME ORCHARD

15. Growing green manure and cover crops.
 - A. Separate, 931 p. 194-199.
 - B. Sears, p. 66-76, 108-118; S. & M. p. 160-162.
 - C.
 - D.
16. Controlling disease and insects.
 - A. S. & M. p. 383, F.B., 1527, F.B. 1001, p.22-23.
 - B. Sears, p. 144-157; Hesler and Whetzel, F.B. 908 Spraying.
 - C. Dept. B. 824, Insect powder, How make and effect.; Dept. B. 599, Striped roach worm; Waugh p. 146.; Va. Ext. B. 14; Va. Exp. B. 236, 239, 224, 223, Experimental data.
 - D.
17. Picking.
 - A.
 - B. Sears, p. 237-238; Waugh p. 149.
 - C.
 - D.
18. Storing the fruit.
 - A. F.B., 879.
 - B. Sears, p. 245 - 257.
 - C.
 - D.
19. Keeping records.
 - A. F.B., 511, Farm bookkeeping

HOME ORCHARD

B. Gould, p. 338-349.

C. Del. Exp. B., 113

D.

SMALL FRUITS

(RASPBERRIES)

1. Determining the acreage.
2. Determining when to plant
3. Selecting the variety
4. Selecting the field.
5. Preparing the land.
6. Securing the plants.
7. Setting out the plants.
8. Fertilizing.
9. Cultivating.
10. Pruning and training.
11. ^{Controlling} 8. " Insects and diseases.
12. 9. Harvesting and marketing.

General Reference for Raspberries

1. Sears - Productive small fruit culture -
F. C. Sears.
Lippincott Co.

RASPBERRIES

1. Selecting the field.
 - A. Va. Ext. B. 67 p. 7-11; F.B. 887 p. 3-7.
 - B. Dept. B. 1189; Sears p. 159-161.
 - C. Separate, 931, p. 263-267.
 - D.
2. Preparing the land.
 - A. F.B. 887 p. 7-8.
 - B. Sears, p. 161-162.
 - C.
 - D.
3. Securing the plants.
 - A. F.B. 887 p. 9-10, 36-42.
 - B. Sears, p. 164-166.
 - C.
 - D.
4. Setting out the plants.
 - A. F.B. 887, p.10-14.
 - B. Sears p. 166-172.
 - C.
 - D.
5. Fertilizing.
 - A. F.B., 887 p. 16-17.
 - B. Sears, p. 20-26, 173-181
 - C.
 - D.

RASPBERRIES

6. Cultivating.
 - A.
 - B. Sears p. 173-176.
 - C.
 - D.
7. Pruning and training.
 - A. F.B., 887 p. 17-29.
 - B. Sears p. 182-208.
 - C.
 - D.
8. Insects and diseases.
 - A. F.B., 887 p. 35; F.B. 1488, Diseases.
 - B. Sears p. 202-208.
 - C. N. J. Exp. B. 88, Diseases.
 - D.
9. Harvesting and marketing.
 - A. F.B. 887 p. 33-34.
 - B. Sears p. 209-222.
 - C. Dept. B., 274, Shipping from west.
 - D.

DEWBERRIES

1. Selecting the field.
2. Preparing the land.
3. Securing the plants.
4. Setting out the plants.
5. Fertilizing.
6. Cultivating.
7. Pruning and training.
8. Insects and diseases.
9. Harvesting and marketing.

General References for Dewberries

1. Sears Production Small Fruit Culture - F. C. Sears
Lippincott Co.
2. S. & M. Horticulture - H. P. Stuckey and C.B. Mathewes.
Smith Hammond & Co.

DEWBERRIES

1. Selecting the field.
 - A. F.B. 1403, p. 2-3; F.B. 1242 Permant Fruit and Vegetable Garden.
 - B. S. & M. p. 387-391.
 - C. Separate 931, p. 263-267.
 - D.

2. Preparing the land.
 - A. F.B. 1403 p. 3
 - B. S. & M. p. 393
 - C.
 - D.

3. Securing the plants.
 - A. F.B., 1403, p. 15-16; Va. Ext. B. 86 p. 19.
 - B. S. & M. p. 391-393.
 - C.
 - D.

4. Setting out the plants.
 - A. F.B., 1403, p. 3-4.
 - B. S. & M. p. 394-396.
 - C.
 - D.

5. Fertilizing.
 - A. F. B., 1403 p. 6.
 - B. S. & M. p. 398-400; Sears, p. 20-26.

DEWBERRIES

G.

D.

6. Cultivating

A. F.B., 1403 p. 4-5.

B.

C.

D.

7. Pruning and training.

A. F.B., 1403, p. 7-11.

B. S. & M. p. 400-403.

C.

D.

8. Insects and diseases.

A. F.B., 994, Sprays; F.B. 1403, p. 13-14.

B. S. & M. p. 403-405; Sears, p. 202-208.

C. N. J. Exp. B., 88, Diseases.

D.

9. Harvesting and marketing.

A. F.B., 1144, cooperative marketing; F.B., 1403, p. 12.

B. S. & M. p. 405-410.

C. F. B. 1434 Baskets; F.B., 688, Parcel Post.

D.

BLACKBERRIES

1. Selecting the field.
2. Preparing the land.
3. Securing the plants.
4. Setting out plants.
5. Fertilizing.
6. Cultivating.
7. Pruning and training.
8. Insects and diseases.
9. Harvesting and marketing.

General Reference for Blackberries

1. **Sears** **Productive Small Fruit Culture - Sears.**
 Lippincotts Co.
2. **S. & M.** **Horticulture - Stuckey and Mathewes.**
 Smith, Hammond & Co.
3. **Fraser** **American Fruits - S. Fraser**
 Orange Gudd Co.

BLACKBERRIES

1. Selecting the field.
 - A. F.B., 1399, p. 2.
 - B. S. & M. p. 413-415; Sears, p. 163-164.
 - C. Fraser, p. 505.
 - D.

2. Preparing the land.
 - A. F.B., 1399 p. 3.
 - B. Sears, p. 166-175; S. & M. p. 418.
 - C.
 - D.

3. Securing the plants.
 - A. F.B., 1399 p. 13-16; Va. Ext. B. p. 19.
 - B. S. & M. p. 415-418; Sears, p. 114-166.
 - C. Cornell Reading Course, Vol. 3, No. 52, p. 32-35.
 - D.

4. Setting out plants.
 - A. F.B., 1399, p. 4-5.
 - B. S. & M. p. 418-419; Sears, p. 166-172.
 - C. Cornell Reading Course, Vol. 3 No. 52, p. 35-37.
 - D.

5. Fertilizing.
 - A. F.B., 1139 p. 6; F.B., 643, p. 7.
 - B. S. & M. p. 419; Sears, p. 20-26, 176-181.
 - C.
 - D.

BLACKBERRIES

6. Cultivating.

A.

B. S. & M. p. 419-422; Sears p. 174-176.

C.

D.

7. Pruning and training.

A. F.B., 1399, p. 6-10.

B. S. & M. p. 420-422; Sears p. 182-208.

C.

D.

8. Insects and diseases.

A. F.B., 1399 p. 13.

B. Sears, p. 202-208; Fraser, p. 509-510.

C. N. J. Exp. B. 88, Diseases.

D.

9. Harvesting and marketing.

A. Dept. B. 266, Methods of shipping; F.B., 1399 p. 10-11.

B. S. & M. p. 422-424; Sears p. 209-222.

C. F.B., 1196, Containers.

D.

GRAPES

1. Selecting the sight.
2. Varieties of grapes.
3. Establishing the vineyard.
4. Pruning and training.
5. Cultivating and fertilizing the vineyard.
6. Insects, diseases and spraying of grapes.
7. Harvesting and marketing.

General Reference for Grapes

1. Sears Productive Small Fruit Culture - S. C. Sears.
Lippincott.
2. S. & M. Horticulture - H. P. Stuckey and C. B. Mathews.
Smith, Hammond and Co.
3. Fraser American Fruits - S. Fraser
Orange Judd Co.

GRAPES

1. Selecting the sight.
 - A. Va. Ext. B., 34; F.B. 471; Separate, 931, p. 272-284.
 - B. Sears, p. 265-278; S. & M. p. 291-302.
 - C. Ala. Exp. B., 211; Ky. Exp. B., 92; Fraser, p. 473-475.
 - D.
2. Varieties of grapes.
 - A. Va. Ext. B. 34 p. 6.
 - B. Sears, p. 279-290.
 - C.
 - D.
3. Establishing the vineyard.
 - A. F. B., 471; Va. Ext. B. 87 p. 16.
 - B. Sears p. 292-300; S. & M. p. 304-311 Propagating.
 - C. Sears, p. 20-26, Fertilizing; Fraser, p. 475-478.
 - D.
4. Pruning and training.
 - A. F.B., 471; Va. Ext. B., 34, p. 10-19.
 - B. Sears p. 310-335; S. & M. p. 312-323.
 - C. Fraser p. 480-482.
 - D.

GRAPES

5. Cultivating and fertilizing the vineyard.
 - A. Va. Ext. B. 34, p. 9.
 - B. Sears, p. 301-309.
 - C.
 - D.

6. Insects, diseases and spraying of grapes.
 - A. F.B., 1220; F.B. 721, The Rosechafer.
 - B. Sears, p. 336-345; S. & M. p. 324-333; N.J. Exp. Circ. 55.
 - C. Dept. B., 901, Grapevine Flea Beetles; Dept. B. 900, Grapevine Looper; Dept. B., 856, Currant Grape Growers; Fraser, p. 483-487.
 - D.

7. Harvesting and marketing.
 - A. Va. Ext. B., 34, p. 21.
 - B. Sears, p. 346-353; Fraser p. 488-492.
 - C. Dept. B., 861, Marketing; S. C. Ext. B. 67, Marketing.
 - D.

NUT TREES

Walnuts:

- A. F. B., 1501, Propagation; F.B., 1459 Timber; F.B., 1392; Mi. Exp. B. 218; Va. Ext. B. 87, p. 15.
- B. Dept. B., 1066, Curculios; Dept. B., 993, Walnut husk maggot.
- C. Dept. B., 993, Growth and management; Dept. B. 909, Utilization; Dept. B., 756, Rosette; Dept. B., 611, Blight; Dept. B., 598, Hickory Tiger Moth; Dept. Circ. 386, Controlling scab; Separate 931, p. 284-304.

Pecans:

- A. F.B., 995; F.B., 700 Pecan culture; F.B., 700; Va. Ext. B. 87, p. 15.
- B. Dept. B., 1102, Kernel spot; Dept. B. 571, Leaf Case Bearer.
- C. 1378 Pecan rosette; S. & M. p. 213-290; F.B., 1364, Insects; F.B., 1129, Diseases; Fla Exp. Sta. B. 170, Top working; 147, Diseases and insects; N.C. State Dept. B. for Feb. 1925; N. C. Exp. B., 224, Budding; Tex. Exp. Cir. 26.

OTHER FRUIT TREES

Pear:

- A. F.B., 482; Va. Ext. B., 87, p. 12.
- B. Dept. B., 822, Production estimates, Districts and varieties.
- C. Fraser p. 370-388.
- D.

Fig:

- A. F.B., 1031.
- B. Dept. B., 732, Smyrna fig culture; Voc. Agri. Ser. (H) p. 338-370.
- C. Fraser p. 713-727; N.C., Exp. B. 208; Tex. Exp. B., 208.
- D.

Cherry:

- A. F. B., 1053, Leaf-spot; Va. Ext. B., 87, p. 13.
- B. Fraser, p. 409-421.
- C. N. J. Exp. Cir., 81, Diseases.
- D.

Plumb:

- A. Va. Ext. B., 87 p. 14.
- B. Fraser, p. 455-470.
- C. N. J. Exp. Cir. 81, Diseases
- D.

Apricott:

- A. Va. Ext. B. 13.
- B. Fraser p. 497-408
- C.
- D.

HOME GARDEN

1. Determining the place of the home garden on the farm.
2. Selecting the location.
3. Planning the garden.
4. *Selecting Varieties*
4. Ordering seed.
5. Preparing the seed bed.
6. Making the hot bed or cold frame.
7. Planting the hot bed or cold frame.
8. Managing the hot bed or cold frame.
9. Manuring and fertilizing.
10. Setting out plants in the garden.
11. Planting seed.
12. Cultivating.
13. Top dressing.
14. Thinning and weeding.
15. Controlling diseases and pests.
16. Following special vegetable practices.
17. Planting to insure fall production.
18. Exhibiting garden products.
19. Saving seed.
20. Harvesting.
21. Storing.
22. Marketing.
23. Keeping records.

General Reference for the Home Garden

1. S. & M. Horticulture - H. P. Stuckey and C. B. Mathews
Turner, E. Smith Co.
2. Floyd Studies in Horticulture - Floyd.
Rand McNally Co.
3. Bailey The Principles of Vegetable - Gardening, L. H. Bailey
The MacMillan Co.
4. Davis Horticulture - Davis.
J. B. Lippincott Co.
5. Watts Vegetable Garden Projects
McMillan Co.

HOME GARDEN

1. Determining the place of the Home Garden on the farm.
 - A. F.B., 1242; 871; 934; 1044; 936; Va. Ext. B., 46, p. 7-8.
 - B. Floyd p. 1-8; F.B., 934, Home Garden in South; F.B., 907, Home Gardens in the North.
 - C. N.C. Ext. Cir., 121-122 - 123; Va. Ext. B., 47; Watts, p. 490-493; F.B., 818 Small Garden; F.B., 1044, City Garden; F.B., 218, School Garden; I.H.C. - B., Make the Garden Pay.
 - D.

2. Selecting the location.
 - A. S. & M. p. 603-608; Va. Ext. B. 46 p. 8-9; F.B., 934.
 - B. Floyd, p. 9-11; Watts, p. 11-16.
 - C.
 - D.

3. Planning the garden.
 - A. S. & M. p. 610-615; Va. Ext. B. 12, p. 6-29; B, 46 p. 15-17.
 - B. Floyd, p. 70-82, 278-302; Davis, p. 63-70, 150-157.
 - C.
 - D.

4. Ordering the seed.
 - A. S. & M. p. 608-609, 613-614, Va. Ext. B. 46, p.27-30.
 - B. Floyd p. 16; Davis p. 14-19; Watts p. 92-102.
 - C. F.B., 884, Saving Seed; Separate, 931 p. 323-340.
 - D. Burpees Catalog - "Seed That Grow" - Vegetable & Flowers.

HOME GARDEN

5. Preparing the seed bed.

A. S. & M. p. 624-625; Va. Ext. B. 22.

B. Floyd, p. 70-74; Davis p. 71-80; Watts, p. 130.

C.

D.

6. Making the hot bed or cold frame.

A. Va. Ext. B. 22; Va. Ext. B. 46 p. 9-12.

B. Bailey, p. 346-364; Watts p. 103-113.

C. Purdue Exp. B. Cir. 77; Ky Ext. Cir. 120.

D.

7. Planting the hot bed or cold frame.

A. Va. Ext. B., 22.

B. Davis, p. 147-149; Bailey, p. 342-346; Watts p. 114-118.

C.

D.

8. Managing the hot bed or cold frame.

A.

B. Bailey, p. 358-364.

C.

D.

9. Manuring and fertilizing.

A. Va. Ext. B., 46 p. 19-21.

HOME GARDEN

- B. Floyd, p. 25-34; Bailey, p. 466-475; Davis p. 370-371.
- C. Ill. Cir., 154; Watts, p. 41-71; Ill. Exp. Cir., 182.
- D.

10. Setting out plants in the garden.

- A.
- B. Floyd, p. 9-11; Davis, p. 71-80; Watts, p. 139-150.
- C.
- D.

11. Planting seed.

- A. S. & M. p. 614-615, 626-628; Va. Ext. B. 46 p. 24-27; 67-69.
- B. Bailey p. 407-413; Davis, p. 147-149; Watts, p. 130-138.
- C.
- D.

12. Cultivating.

- A. S. & M. p. 629; Va. Ext. B. 12 p. 10-11; B. 46 p. 23.
- B. Floyd p. 14, 116, 227, 246, 256, 269; Davis p. 72-73, 148-150.
- C.
- D.

13. Top dressing.

- A.
- B.
- C.
- D.

HOME GARDEN

14. Thinning and weeding.

A.

B. Floyd, p. 14, 147, 224, 166; Davis, p. 72-73, 349-350; Watts, p. 307-308.

C. Manual of Weeds - Georgia.

D.

15. Controlling diseases and pests.

A. S. & M. p. 630-635; F.B., 1371; Va. Ext. B. 68, Good.

B. F.B., 856; Va. Ext. B. 46 p. 52-57; Floyd p. 83-95, F. B., 1351 Cabbage.

C. Bailey, p. 425-438, Very good Remedies for Garden Pests. Va. Ext. B. 12; N. J. Exp. Cir, 89, 107 Plant Lice; F.B., 1407, Mexican Bean Beetle.

D. Posters of Cutworm - U.S.D.A. Bu. of Entomology, Washington, D.C.

16. Following special vegetable practice.

A.

B.

C.

D.

17. Planting to insure fall production.

A.

B.

C.

D.

HOME GARDEN

18. Exhibiting garden products.

A. Va. Ext. B., 46 p. 64-66; Va. Ext. B. 84.

B.

C.

D.

19. Saving seed.

A. F.B., 884.

B.

C.

D.

20. Harvesting.

A.

B. Floyd, p. 278-302; Davis p. 186, 262, 266, 268, 254;
Watts, p. 311.

C.

D.

21. Storing.

A. Va. Ext. B., 46, p. 61-64; F.B., 879, Home Storage;
Va. Ext. B., 18.

B. Floyd, p. 304-311; Davis, p. 143-144, 119; Watts, p.
193-195.

C. (F.B., 841, Drying Fruits; 984); Conn. Ext. B., 77.

D.

HOME GARDEN

22. Marketing.

A. Va. Ext. B., 46 p. 58-61.

B. Bailey p. 439-465; Watts, p. 162-187.

C.

D.

23. Keeping records.

A.

B. Floyd, p. 319-323.

C.

D.

ASPARAGUS

1. Determining the acreage and field.
2. Selecting the variety.
3. Preparing the land.
4. Selecting the roots and planting.
5. Growing the plants and fertilizing.
6. Careing for the young plants.
7. Cultivating and care the second year.
8. Controlling insects and diseases.
9. Cutting.
10. Marketing.

General Reference for Truck

1. Bailey The Principles of Vegetable - Gardening -
L. H. Bailey. MacMillan Co.
2. Watts Vegetable Gardening - R. L. Watts.
Orange Judd Co.

Special Reference for Truck

1. Hinkle Fertility and Crop Production - S. F. Hinkle.
S. F. Hinkle Co.
2. Mi. Exp. B., 261 - The Control of Truck Crop Pests by Dusting.
Dept. Cir. 62, Horticultural Exhibitions & Garden Competitions.
Va. Ext. B., 84, Selecting and Exhibiting Fruit; Dept. B.,
1005, Soils of Eastern Virginia and Their Uses for Truck Crop
Prod.; Dept. B., 703, Misc. Truck Crop. Insects.
3. Georgia Manual of Weeds - Ada. Georgia; Dept. Cir., 346,
Extension work with fruits and vegetables.

ASPARAGUS

1. Determining the acreage and field.
 - A. F.B., 829, p. 3-4.
 - B. Bailey, p. 20-32.
 - C. Mass. Agri. Veg. Growing, p. 154; Col., B. 381, Good illustrations; Oregon Ext. Cir. 224; Watts, p. 202-204, History.
 - D.
2. Selecting the variety.
 - A. F.B., 829, p. 11-13.
 - B. Watts, p. 204-205.
 - C.
 - D.
3. Preparing the land.
 - A.
 - B. Watts, p. 206, 212-213.
 - C. Ky. Ext. Cir. 68, p. 3-4.
 - D.
4. Selecting the roots and planting.
 - A. F. B., 829, p. 5-7.
 - B. Watts, p. 206-209; 216-218, planting.
 - C. Ky. Ext. Cir., 68 p. 4-8.
 - D.

ASPARAGUS

5. Growing the plants and fertilizing.
 - A. F.B., 829, p. 4-7.
 - B. Hinkle, p. 246-250; Watts, p. 213-216.
 - C. Ky. Ext. Cir. 68, p. 6-8, 12.
 - D.
6. Caring for young plants and fertilizing.
 - A. Va. Exp. B., 221.
 - B.
 - C.
 - D.
7. Cultivating and care the first and second year.
 - A. F.B., 829, p. 7, 17-18.
 - B. Watts, p. 218-219.
 - C.
 - D.
8. Controlling insects and diseases.
 - A. Va. Ext. B., 68, p. 13, 30, Spray calender, p. 44-49, Beetle, Rust.
 - B. F.B., 1282, Nicotine dust; F.B., 837, Beetles and their control; Ky. Ext. Cir. 68.
 - C. F.B., 829 p. 13, Rust. Va. Exp. B., 35, 36, Dusting; Watts, p. 224-226.
 - D. Posters on Grass-hoppers - U.S.D.A. Bu. of Ent., Washington, D.C.

ASPARAGUS

9. Cutting.

A. F. B., 829, p. 9.

B. Watts, p. 220.

C. Ky. Ext. Cir. 68, p. 8-9.

D.

10. Marketing.

A.

B. Yearbook for 1925, p. 623-673; Watts, p. 221-223.

C. Ky. Ext. Cir. p. 10-11; S.C. Ext. B. 61.

D.

CABBAGE

1. Deciding the acreage and field.
2. Determining variety.
3. Planting and care of hot bed.
4. Preparing land.
5. Fertilizing.
6. Pulling plants and sitting out.
7. Cultivating.
8. Harvesting and storing.
9. Marketing.
10. Controlling diseases.

General Reference for Cabbage

1. Bailey The Principles of Vegetable Gardening -
F.H. Bailey. MacMillan Co.
2. Watts Vegetable Gardening - R. L. Watts.
Orange Gudd Co.

Special Reference for Growing Cabbage.

1. Hinkle Fertility and Crop Production - S. F. Hinkle.
S. F. Hinkle Co.

CABBAGE

1. Deciding the acreage and field.

A. F.B., 433.

B. Bailey, p. 66-79; Watts, p. 254-255.

C. Separate, 931, p. 384-387.

D.

2. Determining variety.

A.

B. Watts, p. 256-252; Bailey, p. 78-79.

C. Pa. Exp. B., 154, Variety tests.

D.

3. Planting and care of the hot bed.

A. F.B., 433, p. 8.

B. Dept. Cir., 311, Cabbage- seed treatment; Watts, p. 103-113, 265-268.

C.

D.

4. Preparing land.

A.

B. Watts, p. 268.

C.

D.

5. Fertilizing.

A. Va. Exp. B. 221

CABBAGE

- B. Hinkle, p. 285-290, 248, Watts, p. 269-271.
 - C.
 - D.
6. Pulling plants and sitting out.
- A. F.B., 433 p. 8.
 - B. Bailey, p. 74-75; Watts, p. 271-272.
 - C.
 - D.
7. Cultivating.
- A. F.B., 433, p. 9.
 - B. Bailey, p. 75; Watts, p. 273.
 - C.
 - D.
8. Harvesting and storing.
- A. F.B., 433, p. 11-13.
 - B. Bailey, p. 75-78; Watts, p. 273-274, 275-281.
 - C. F. B., 433, p. 20-23, storage.
 - D.
9. Marketing.
- A. Dept. B., 1242; F.B., 1423, Preparation for market.
 - B. Yearbook for 1925, p. 623-673; Watts, p. 274-275.
 - C. F.B., 433, p. 13-14.
 - D.

CABBAGE

10. Controlling insects and diseases.

- A. F.B., 1439, Diseases; Watts, p. 282-290; Va. Exp. B. 226, Yellows; F.B., 1461, Common Cabbage Worm; F.B., 1351, Diseases; F.B., 1282 Dust.
- B. Va. Ext. B. 68, p. 14, Black Leg, black rot, club root, yellow, p. 30 Cabbage worm; Harlequin Cabbage Bug; plant lice, root maggot, cutworms, p. 35-51 Spraying; F.B. 766, Worm; Dept. B. 902 flea-beetle; Va. B., 225.
- C. F.B., 925, Diseases, Cornell Exp. B., 413, Del. Exp. B. 132, Stem rot; Dept. B., 1029 B. leg, Va. Exp. B. 191, club root; F.B., 1061, Harlequin Cabbage Worm.
- D.

CUCUMBER

1. Deciding acreage and field.
2. Selecting variety.
3. Preparing land.
4. Fertilizing.
5. Planting.
6. Cultivating.
7. Controlling diseases and insects.
8. Harvesting.
9. Marketing.

General Reference for Cucumbers

1. **Watts** Vegetable Gardening - R. L. Watts.
Orange Guld Co.

CUCUMBERS

1. Deciding acreage and field.

- A. F.B., 254, p. 1-3; Separate, 931, p. 425-428.
- B. Bailey, p. 284-291; Watts, p. 330-331.
- C. F.B., 1332, Production of cucumbers in greenhouses.
- D.

2. Selecting variety.

- A.
- B. Watts, p. 331.
- C.
- D.

3. Preparing land.

- A.
- B. Watts, p. 333.
- C.
- D.

4. Fertilizing.

- A. F.B., 254, p. 9; Va. Exp. B. 221.
- B. Watts, p. 333-334.
- C.
- D.

5. Planting.

- A. F.B., 254, p. 3-4.
- B. Watts, p. 334-335.

CUCUMBERS

C.

D.

6. Cultivating.

A.

B. Watts, p. 335.

C.

D.

7. Controlling diseases and insects.

A. Va. Ext. B., 68, p. 15, Anthracnose, Downy Mildew, Wilt, p. 31-32, striped.

B. Cucumber beetle, squash vine borer, melon aphid; Dept. B., 727, Anthracnose.

C. F.B., 254, p. 4-6; (Dept. B., 1461, Control of mosaic) Ohio Exp. B., 388; N.J. Exp. Cir. 68; Dept. Cir. 234, Bacterial spot; Dept. Cir., 224, Nicotine dust beetle; Watts, p. 336-338.

D.

8. Harvesting.

A. F.B., 252, p. 11.

B.

C.

D.

9. Marketing.

A. F.B., 254, p. 6.

B. Yearbook for 1925, p. 623-673; Watts, p. 335-336.

C.

D.

10.

LETTUCE

1. Deciding acreage and field.
2. Choosing the variety.
3. Sowing seed in fall for transplanting.
4. Determining the method of bleaching.
5. Fertilizing.
6. Preparing beds and marking.
7. Planting.
8. Cultivating.
9. Harvesting and marketing.
10. Diseases and insects.

General Reference for Lettuce.

1. Watts Vegetable Gardening - R. L. Watts.
Orange Gudd Co.

LETTUCE

1. Deciding acreage and field.
 - A. Separate, 931, p. 390-393.
 - B. F.B., 1418, Lettuce growing in the green houses.
 - C. Bailey, p. 100-109; Mich. B. 89, Gun hoas; Watts, p. 351.
 - D.
2. Choosing the variety.
 - A.
 - B. N. J. B. 155, p. 10-13; S. C. Exp. B., 215; Watts, p. 351-354.
 - C.
 - D.
3. Sowing seed in fall for transportation.
 - A.
 - B. Watts, p. 355.
 - C.
 - D.
4. Determining the method of bleaching.
 - A.
 - B.
 - C.
 - D.
5. Fertilizing.
 - A. Va. Exp. B., 221.
 - B. N. J. Exp. B., 155, p. 8-10; Watts, p. 356.

LETTUCE

- C.
- D.
- 6. Preparing beds and marketing.
 - A.
 - B. N. J. Exp. B., 155, p. 13-15.
 - C.
 - D.
- 7. Planting.
 - A.
 - B. N.J. Exp. B., 155, p. 15-17; Watts, p. 357.
 - C.
 - D.
- 8. Cultivating.
 - A.
 - B. N.J. Exp. B. 155, p. 18; Watts, p. 358.
 - C.
 - D.
- 9. Harvesting and marketing.
 - A. Dept. B., 1412.
 - B. Yearbook for 1925, p. 623-673; Watts, p. 358.
 - C. Cornell Ext. B. 87, p. 20.
 - D.
- 10. Diseases and insects.
 - A.

LETTUCE

- B. N. J. Exp. B., 155, p. 22-24; Watts, p. 358.
- C. Md. Exp. B., 261, Dusting; N.J. Exp. Cir. 170.
- D.

ONIONS

1. Determining the acreage and field.
2. Choosing the variety.
3. Preparing the land.
4. Fertilizing.
5. Planting the crop.
6. Cultivating.
7. Controlling insects and diseases.
8. Harvesting.
9. Storing.
10. Marketing.

General Reference for Onions

1. Watts Vegetable Gardening - R. L. Watts
Orange Gudd Co.
2. Bailey The Principles of Vegetable Gardening -
L. H. Bailey. MacMillan Co.

ONIONS

1. Determining the acreage and field.
 - A. F.B., 354, F.B., 434, Home production.
 - B. S. C. Ext. Cir. 74; Watts, p. 380-381; Separate, 931, p. 374-382.
 - C. Bailey, p. 141-154.
 - D.
2. Choosing the variety.
 - A. F.B., 434.
 - B. Md. Exp. B., 195, p.77; Bailey, p. 144-146; Watts, p. 381-383.
 - C.
 - D.
3. Preparing the land.
 - A.
 - B. Md. Exp. B., 195, p. 72; S.C. Ext. Cir. 74, p. 2-3; Watts, p. 386-387.
 - C. Ill. Exp. B. 175, p. 361, conclusion.
 - D.
4. Fertilizing.
 - A. Va. Exp. B., 221.
 - B. Watts, p. 387-389; Purdue Exp. Cir. 57, p. 5-9.
 - C.
 - D.

ONIONS

5. Planting the crop.

A.

B. Md. Exp. B. 195, p. 75; Bailey, 146-149; Watts, p. 390-394.

C.

D.

6. Cultivating.

A.

B. Watts, p. 394-395; Purdue Exp. Cir. 57, p. 11-14.

C. Bailey, p. 149-152; Md. Exp. B. 195, p. 75-76.

D.

7. Controlling insects and diseases.

A. Va. Ext. B. 68, p. 16, Anthracnose, smut, p. 33. Root maggot, Trip.

B. F.B., 1060, diseases and controll; Watts, p. 405-406; Purdue Exp. Cir. 57, p. 25-26.

C. F.B., 1007, Onion trip control; Ill. Exp. B. 220, Black spots.

D.

8. Harvesting.

A.

B. Watts, p. 396-397; Purdue Exp. Cir. 57, p. 14-17.

C. Md. Exp. B. 195, p. 77.

D.

ONIONS

9. Storing.

A.

B. Bailey, p. 152-153; Watts, p. 397-400.

C.

D.

10. Marketing.

A.

B. Dept. B., 1325; Md. Exp. B., 195, p. 178; Purdue Exp. Cir. 57, p. 17-19.

C. Dept. B., 1283 Marketing of Bermuda onions; Watts, p. 400.

D.

BEANS

1. Deciding on acreage and field.
2. Selecting variety.
3. Preparing seed bed.
4. Fertilizing.
5. Securing and testing seed.
6. Planting seed.
7. Cultivating.
8. Controlling diseases and insects.
9. Harvesting.
10. Preparation for market.

General Reference for Beans

1. Watts Vegetable Gardening - R. L. Watts
Orange Gudd Co.

BEANS

1. Deciding on acreage and field.
 - A. F.B., 289 p. 3, 12-13.
 - B. Bailey, p. 243-246.
 - C. Mich. Special B. 129, Bean growing. The Agricultural Outlook, Mich. Cir., 101.
 - D.
2. Selecting variety.
 - A. F. B., 289, p. 2.
 - B. Watts, p. 230-232.
 - C.
 - D.
3. Preparing seedbed.
 - A. F.B., 289, p. 5-6.
 - B. Watts, p. 234-235.
 - C.
 - D.
4. Fertilizing.
 - A. F.B., 289, p. 13; Va. Exp. B., 221.
 - B. Watts, p. 235-236.
 - C.
 - D.
5. Securing and testing seed.
 - A.

BEANS

- B. Watts, p. 236.
 - C.
 - D.
6. Planting seed.
- A. F.B., 289, p. 6-7.
 - B. Watts, p. 237-239.
 - C.
 - D.
7. Cultivating.
- A. F.B., 289, p. 7.
 - B. Watts, p. 240.
 - C.
 - D.
8. Controlling diseases and insects.
- A. Va. Ext. B., 68, p. 13, 30; F.B., 289, p. 18; Va. Exp. B., 220 Bean rust.
 - B. Dept. B. 1243, Mexican Bean Beetle; F.B., 1407; Dept. B., 807, Bean Weevil.
 - C. F. B., 1074, Bean Ladybird; Watts, p. 243-245.
 - D.
9. Harvesting.
- A. F. B., 289, p. 7-12.
 - B. Watts, p. 240-242.
 - C.
 - D.

BEANS

10. Preparing for market.

A.

B. Watts, p. 242-243.

C.

D.

SPINACH

1. Deciding the acreage.
2. Selecting field.
3. Selecting variety.
4. Preparing seed bed.
5. Procuring and testing seed for germination.
6. Fertilizing.
7. Planting.
8. Thinning.
9. Cultivating.
10. Controlling insects and diseases.
11. Harvesting.
12. Preparing for market.
13. Keeping records.

General Reference for Spinach

1. **Watts Vegetable Gardening - R. L. Bailey**
Orange Gudd Co.

SPINACH

1. Deciding the acreage.
 - A. Separate, 391, p. 393.
 - B. Bailey, p. 52-58, Watts, p. 425-394.
 - C.
 - D.
2. Selecting field.
 - A.
 - B. Watts, p. 11-16.
 - C.
 - D.
3. Selecting variety.
 - A.
 - B. Watts, p. 425-426.
 - C.
 - D.
4. Preparing seed bed.
 - A.
 - B. Watts, p. 426.
 - C.
 - D.
5. Procuring and testing seed for germination.
 - A.
 - B. Watts, p. 92-102.
 - C.
 - D.

SPINACH

6. Fertilizing.

A. Va. Exp. B., 221

B. Watts, p. 41-71.

C.

D.

7. Planting.

A.

B. Watts, p. 130-138.

C.

D.

8. Thinning.

A.

B. Watts, p. 133.

C.

D.

9. Cultivating.

A.

B. Watts, p. 426.

C.

D.

10. Controlling insects and diseases.

A. Va. Ext. B., 68, p. 18-19, Blight, Mildew, Leaf Spot.

B. Separate, 786, Weevils in Beans.

C. Md. Exp. B., 261, Dusting.

D.

SPINACH

11. Harvesting.

A.

B. Watts, p. 163-176.

C.

D.

12. Preparing for market.

A.

B. F.B., 1189 Long - distance shipments.

C. Watts, p. 162-187.

D.

13. Keeping records.

A. F.B., 511, Bookkeeping.

B. F. B., 1139, Analyzing the farm business.

C.

D.

STRAWBERRIES

1. Determining the acreage.
2. Selecting the variety.
3. Securing plants.
4. Preparing seed bed.
5. Fertilizing.
6. Setting out plants.
7. Cultivating.
8. Top dressing.
9. Pruning.
10. Combating diseases.
11. Picking and crating.
12. Marketing.
13. Care of field after first season.
14. Keeping records.

General Reference for Strawberries

1. Sears (P.S.F.C.) Productive Small Fruit Culture,
F. C. Sears.
Lippincott Co.
2. S. & M. Horticulture - H. P. Stuckey &
C. B. Mathews.
Smith Hammond & Co.

STRAWBERRIES

1. Determining the acreage and field.
 - A. F.B., 1028, p. 3-12; F.B., 854; F.B., 1026, p. 3-6.
 - B. S. & M. p. 427-435; Sears P.S.F.C., p. 1-7.
 - C. Separate, 931, p. 259-263; Ky. Exp. B. 255.
 - D.

2. Selecting the variety.
 - A. F.B., 1043; F.B., 1028, p. 46-47; F.B., 1026, p. 35; F. B. 854, p. 21-22.
 - B. Va. Ext. B. 36, p. 13-15; Sears P.S.F.C. p. 65-71.
 - C. F. B., 901, Everbearing Va. Tec. Exp. B., 11; Ohio Exp. B. 364, p. 69-93.
 - D.

3. Securing plants.
 - A. F.B., 1026, p. 10-13; Va. Ext. B., 87, p. 20.
 - B. S. & M., p. 435-443; Sears, P.S.F.C. p. 72-77.
 - C.
 - D.

4. Preparing seed bed.
 - A. F.B., 1028, p. 12-14; F.B., 1026, p. 6, Va. Ext. B., 36.
 - B. S. & M. p. 446-449; Sears, P. S.F.C., p. 57-64.
 - C. F.B., 854, p. 8-9; Ohio Exp. B., 364, p. 64-69.
 - D.

STRAWBERRIES

5. Fertilizing.

A. F.B., 1028, p. 31-33, Va. Exp. B., 221; F.B., 1026 p. 28; F.B., 854 p. 9-10.

B. Va. Ext. B., 36; Sears, P.S.F.C. p. 102-109, 20-26.

C.

D.

6. Setting out plants.

A. F.B., 1028, p. 23-26; F.B., 1026, p. 14-20; Va. Ext. B., 36, p. 8.

B. S. & M. p. 449-455; Sears, P.S.F.C. p. 78-93.

C. F. B., 854, p. 11-12.

D.

7. Cultivating.

A. F.B., 1028, p. 28-31, 34-37; F.B., 1026, p. 17, 23-24, 26-27.

B. S. & M. p. 455-462; Sears, P.S.F.C. p. 94-102.

C. F. B., 854 p. 12-15, Va. Ext. B., 35 p. 9-10.

D.

8. Top dressing and mulching.

A.

B. Sears, P.S.F.C. p. 125-143.

C.

D.

9. Pruning.

A. F.B., 1028, p. 26-28.

STRAWBERRIES

B. Sears, P.S.F.C. p. 110-115.

C.

10. Controlling diseases and insects.

A. F.B., 1458; Dept. Cir. 309, fruit rots; F.B. 1026, p. 35-36. Va. Ext. B., 36, p. 16; Sears, P. S.F.C. p. 116-124; N.J. Exp. B., 324, Wevil; Dept. Cir., 402; Va. Ext. B. 68, p. 12, Leaf spot, p. 30, Crown borer, white grub.

B. S. & M. p. 462-466; Hesler & Whetzel, p. 420-439; N.C. Tec. B. 28.

C. F. B. 1345 Root knot, Rhizopus rot in transit; Va. Ext. B. 68, p. 49 Calender; Dept. Cir. 309, Fruit rot; Dept. B. 686; N.J. Exp. Cir. 65.

11. Picking and crating.

A. F. B., 1028, p. 37-39; 854; F.B., 979; F.B., 1028, p. 32-34.

B. S. & M. p. 470-475; Sears, P. S. F. C., p. 144-156.

C. F. B., 979, Preparing for market; 1434, Baskets, 1196, Containers.

D.

12. Marketing.

A. F. B., 979, Va. Ext. B. 36 p. 11-13.

B. S. & M. p. 475-480; Dept. B., 266, 267; Ky. Ext. Cir, 204.

C. F.B., 1144, Cooperative Marketing; Dept. B., 688, Parcel Post; Ky. Exp. B., 246, Yearbook for 1925, p. 623-673; Dept. B., 531, Rot of berries in transit.

D.

13. Care of field after first season.

A. F.B., 1028, p. 39-45; F.B., 854, p. 17-18.

B. Sears, P.S.F.C. p. 136-143.

C.

STRAWBERRIES

D.

14. A. F.B., 511, Farm bookkeeping.

B. F.B., 1139, Analyzing the farm business.

C.

D.

SWEET POTATOES

1. Determining the acreage.
2. Selecting field.
3. Selecting variety.
4. Securing seed for budding.
5. Growing slips.
6. Preparing bed for slips.
7. Care of bed and pulling slips.
8. Preparing land.
9. Fertilizing.
10. Treating slips.
11. Setting slips.
12. Having seed certified.
13. Cultivating.
14. Controlling diseases and insects.
15. Harvesting and grading.
16. Storing and bedding.
17. Marketing.

General Reference for Growing Sweet Potatoes

1. Mont. Productive Farm Crops - Montgomery.
 Lippincott, Co.
2. Watts Vegetable Gardening - R. L. Watts.
 Orange Gudd Co.
3. T. E. Smith, Fm. Cir. - Farm Crops - Turner E. Smith.
 Turner E. Smith Co.

SWEET POTATOES

1. Determining the acreage.

- A. F.B., 999; Va. Ext. B., 60, p. 32-34.
- B. 1920 Yearbook, p. 11-12; Watts, p. 435 - Separate, 931, p. 361-368.
- C. Mont., p. 289-291; Bailey p. 216-226.
- D. Make use of effective work of potato specialist, American Steel & Wire Co., 208 La Salle St., Chicago, Illinois.

2. Selecting the field.

- A. T.E. Smith, Fm. Cir. p. 231-236.
- B.
- C.
- D.

3. Selecting variety.

- A. Va. Ext. B., 60, p. 34-35; F.B., 999.
- B. H. & W., p. 382, Dept. B. 1206, p. 7-8; T. E. Smith Fm. Cir. p. 239-246.
- C. Dept. B., 1041, Varieties for canning; Dept. B., 1021, Excellent description and illustrations; Watts, p. 436-439.

4. Securing seed for bedding.

- A. Va. Ext. B., 60, p. 37, Desinfecting, p. 48.
- B. H. & W. p. 383; T. E. Smith, Fm. Cir. p. 238-246; Watts, p. 440-441.
- C. Bailey, p. 220-222.
- D.

SWEET POTATOES

5. Growing slips.

A. F.B., 999.

B. H. & W., p. 383; Mont. p. 293; Va. Tr. Exp. 39, 40,
Storing and bedding.

C. Watts, p. 441-444.

D.

6. Preparing bed for slips.

A. Va. Ext. 60, p. 38-42.

B. H. & W., p. 384; T. E. Smith, Fm. Cr. p. 246-248.

C.

D.

7. Care of bed and pulling slips.

A. F.B., 999.

B. H. & W., p. 384.

C.

D.

8. Preparing land.

A. F.B., 999; Va. Ext. B. 60 p. 42-43.

B. H. & W. p. 384; T. E. Smith Fm. Cr. p. 251-252;
Watts, p. 444.

C.

D.

9. Fertilizing.

A. F.B., 999; Va. Ext. B. 60 p. 35-37; Va. Exp. B., 221.

B. T. E. Smith, Fm. Cir. p. 252-254, Mont. p. 291-292.

SWEET POTATOES

C. Hinkle, p. 260-261; Watts, p. 444-446.

D.

10. Treating slips.

A. F.B., 999.

B.

C.

D.

11. Setting slips.

A. F.B., 999; Va. Ext. B. 60, p. 44-46.

B. H. & W., p. 384-385; T. E. Smith, Fm. Cir. p. 254-256.

C. F.B. 999; Mont. p. 295 - 296; Watts, p. 446.

D.

12. Having seed certified.

A. Va. Dept. of Agriculture Immig. Leaflet No. 9, Richmond.

B.

C.

D.

13. Cultivating.

A. F.B., 999

B. H. & W., p. 385; T. E. Smith, Fm. Cr. p. 256-257; Watts, p. 447.

C.

D.

14. Controlling diseases and insects.

A. F.B., 1059; Va. Ext. B. 68, p. 19, Stem rot, Black rot,

SWEET POTATOES

Foot rot, Soft rot.

- B. Va. Ext. B. 68, p. 34, Flea Beetle, Cut worm; F.B., 1020, Weevil.
- C. Va. Ext. B., 60, p. 47, Bailey, 217-218; F.B., 714; Del. Exp. B. 109; Miss. Exp. B., 190; Watts, p. 449-450.
- D. American Steel and Wire Co. 208, La Salle St., Chicago, Ill., Disease charts.

15. Harvesting and grading.

- A. F.B., 999; Va. Ext. B. 60, p. 49-50; T. E. Smith, Fm. B., p. 259-263.
- B. H. & W., p. 385; Dept. B., 1206, p. 13-34, Excellent illustration of grading and packing.
- C. F.B., 753; 970; Bailey, p. 222-226; Dept. Cir. 99, Grades; Watts, p. 448.
- D.

16. Storing and bedding.

- A. F.B., 1442; 1267; Va. Exp. B., 60 p. 51-54; Voc. Agr. Ser. (Fm. Cr.), p. 263-273.
- B. H. & A. p. 368; Dept. B., 1206, p. 4-7; Dept. B., 1063, Good experimental data.
- C. Yearbook for 1925, p. 673-683; F.B., 970 Storage; Del. B. 127; Watts. p. 448.
- D. Bedding Potatoes No. 4121 - American Steel & Wire Co.

17. Marketing.

- A. F.B., 999; Va. Ext. B. 60, p. 54; T. E. Smith, Fm. Cr. p. 273-277.
- B. 1925 yearbook, p. 623-673; Dept. B., 1206, p. 8-13, 34-46, Excellent general information.
- C. F.B., 1050, Handling and Loading, 1196 Containers; Watts, p. 448.
- D.

SWEET POTATOES

18. Keeping records.

A. F.B., 511, Bookkeeping.

B. F.B., 1139, Analyzing the Business.

C. F.B., 572, Cost accounting.

D.

TOMATOES

1. Determining the acreage.
2. Selecting land.
3. Selecting variety.
4. Preparing seed bed.
5. Selecting seed.
6. Fertilizing field.
7. Sowing seed in hot bed.
8. Transplanting to cold frame.
9. Buying plants.
10. Transplanting to field.
11. Cultivating.
12. Controlling diseases and insects.
13. Harvesting.
14. Marketing.

General Reference for Tomatoes

1. S. & M. Horticulture - H. P. Stuckey & C. B. Mathews.
 Smith, Hammond & Co.
2. Watts Vegetable Gardening - R. L. Watts.
 Orange Gudd Co.

Special Reference for Tomatoes

1. Hinkle Fertility and Crop Production - S. F. Hinkle
 S. F. Hinkle Co.

TOMATOES

1. Determining the acre.

- A. F.B., 642; Va. Cir. 58 Canning; Separate, 931, p. 415-416.
- B. Watts, p. 450-451; N.J. Exp. B. 353; Cornell Ext. B. 96, Growing for canning.
- C. F.B., 1338, Tomatoes as a truck crop; 1233, Tomatoes for canning; Md. Ext. Cir. 53; Del. Ext. Cir. 11, Increasing yields; N. J. Cir. 103, Early tomato growing in N. J. (good); Del. B. 101, Canning.

D.

2. Selecting the land.

- A. F.B., 1338.
- B. S. & M. p. 524-528; Watts, p. 452-453.
- C. Md. Ext. B. 38.

D.

3. Selecting variety.

- A. F.B., 1291, p. 5, 1338, p. 4; F.B. 1436, Why tomatoes run out.
- B. F.B., 1431 Green house tomatoes; Bailey p. 263-264; Watts, p. 454-455; Va. Tr. Exp. B. 36, Green house tomatoes growing in Va.; Md. Exp. B., 248, For market and canning.
- C. S. & M. p. 529-531; Dept. B., 1015, Witt- Resistant.

D.

4. Preparing seed bed.

- A. F.B., 1338, p. 12-13.
- B. S. & M. p. 526; N.Y. Ext. B., 96, p. 4; Md. Ext. B. 38, p.4, 9-10.
- C. Watts, p. 458.

D.

TOMATOES

5. Selecting seed.
 - A.
 - B. Md. Ext. B. 38, p. 10; Watts, p. 456.
 - C. N.J. Exp. B. 103 p. 27; Cal. Tech. Paper 18, Rate of Germination.
 - D.
6. Fertilizing field.
 - A. F.B., 1338, p. 13-14; Va. Exp. B., 221.
 - B. S. & M. p. 542-545; N. Y. Ext. B. 96, p. 7-10.
 - C. Hinkle, p. 243; F.B. 220, p. 11-12; Watts, p. 458.
 - D.
7. Sowing seed in hot bed.
 - A. F.B., 1338, p. 5-9; N. J. Exp. B. 103, p. 7-8.
 - B. S. & M. p. 531-537; Bailey, p. 258-260.
 - C. Mo. Exp. B., 212.
 - D.
8. Transplanting to cold frame, spots or pots.
 - A. N. J. Exp. B., 103, p. 8-15.
 - B. S. & M. p. 537-538; Watts, p. 460-461.
 - C. Mo. Exp. B. 212.
 - D.
9. Buying plants.
 - A.
 - B. S. & M. p. 528-532.

TOMATOES

- C. Del. Exp. B. 101, Tomatoes for canning factory;
Purdue Exp. Cir. 59.
- D.
10. Transplanting to field.
- A. F.B., 1338, p. 9-12, 15-18; N. J. Exp. B. p. 15-22.
- B. S. & M. p. 546-548; Dept. B., 1099; N. Y. Ext. B., 96,
p. 10-13.
- C. F. B., 220, p. 9; Watts, p. 460-461.
- D.
11. Cultivating.
- A. F.B., 1338, p. 18-22.
- B. S. & M. p. 548-552; Watts, p. 461.
- C. Bailey, p. 260-262; F.B., 220, p. 12-13.
- D.
12. Controlling diseases and insects.
- A. Va. Exp. B. 192, Blight and rot; Va. Exp. B., 230, Spraying;
F.B., 1338, p. 22-27; Va. Ext. B., 86, p. 20-21, Leaf Blight,
Late Blight, Blossom End rot; Wilt, p. 16 Damping off.
- B. S. & M. p. 545-546, 554-559; Md. Cir, 58, Dept. B., 1099.
- C. Va. Ext. B. 68, p. 34, Tomato Worm, cut worm, potato beetle,
Flea beetle; Va. Ext. B. 213; Dept. Cir. 315, Chilling;
Dept. B. 1288, Leaf spot; Va. Exp. B. 230; U.S.D.A. Cir.
95; Ohio Exp. B. 321, Diseases, Va. Exp. B., 213; Dept.
Cir. 219; Va. Tr. B., 46.
13. Harvesting.
- A. F.B., 1291, p. 6-32, 1338 p. 27-33.
- B. S. & M. p. 560-561; Bailey, p. 262-263; Watts p. 463.

TOMATOES

C. F.B., 1196, Containers; F.B., 1434, Standard baskets;
N. J. Exp. B., 130, p. 24-26.

D.

14. Marketing.

A. F.B., 1291, Preparation for marketing.

B. S. & M. p. 561-563; Dept. B., 859, Commercial growing
and shipping.

C. F.B., 1196, Standard containers; 1925 yearbook, p.
623-673, Good general information; Watts, p. 463-464.

15. Keeping records.

A. F.B., 511, Bookkeeping.

B. N.Y. Ext. B. 96, p. 16-20

C.

D.

WATERMELON

1. Determining the acreage.
2. Soils best suited for watermelons.
3. Selecting the variety.
4. Securing seed.
5. Use of fertilizer and manure.
6. Plowing land.
7. Preparing and spacing hills.
8. Planting the seed.
9. Cultivating.
10. Controlling insects.
11. Controlling diseases.
12. Cutting the melons.
13. Shipping and marketing.
14. Keeping records.

General Reference for Watermelons

1. S. & M. Horticulture - H. P. Stuckey & C. B. Mathews.
Smith, Hammond & Co.
2. Watts Vegetable Gardening - R. L. Watts.
Orange Gudd Co.

WATERMELONS

1. Determining the acreage.
 - A. F.B., 1394; Separate 931, p. 422-424.
 - B. Bailey, p. 296-301; Watts, p. 467.
 - C. Ga. Exp. B. 143.
 - D.
2. Soils best suited for watermelons.
 - A. F.B., 1394, p. 3.
 - B. S. & M. p. 484-488.
 - C.
 - D.
3. Selecting the variety.
 - A. F.B., 1394, p. 6-7.
 - B. S. & M. p. 488-490; Watts, p. 467-468.
 - C.
 - D.
4. Securing seed.
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 - B. Watts, p. 468-469.
 - C.
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5. Use of fertilizer and manure.
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 - B. S. & M. p. 491-494.

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6. Plowing land.

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C. See Corn.

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7. Preparing and spacing hill.

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B. S. & M. p. 494.

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8. Planting the seed.

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B. S. & M. p. 494-496; Watts, p. 469

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9. Cultivating.

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- C.
- D.

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 - D.

4. Sweet Corn.
 - A.
 - B. See Corn.
 - C.
 - D.

BEEF CATTLE

1. Determining the number of beef cattle to keep.
2. Choosing a breed of beef cattle.
3. Selecting the breeding stock.
4. Housing and equipment.
5. Breeding.
6. Feeding and care of breeding stock.
7. Care of cow and calf.
8. Producing baby heaves.
Obtaining Feeders
9. Providing pasture.
Feeding, Feeder cattle
10. Fattening cattle.
11. Controlling diseases and pests
12. Butchering beef cattle.
13. Marketing beef cattle.
14. Feeding- *feeder cattle*
15. Dehorning and castrating.
16. Obtaining feeders.
17. Caring for bull.
18. Exhibiting.
19. Keeping records
20. Illustration.

omit +

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 - C. H. & M. p. 466-469; Iowa Exp. Cir., 75 Equipment, 74 Barns
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DAIRYING

- ✓ 1. Deciding upon the dairy enterprise.
- ✓ 2. Choosing the breed. ✓
- ✓ 3. Selecting the individual. ✓
- ✓ 4. Securing the herd.
- ✓ 5. Providing equipment and housing. ✓
- ✓ 6. Testing and keeping production records. ✓
- ✓ 7. Feeding cows for winter production ✓
- ✓ 8. Grading up the herd and breeding.
- ✓ 9. Feeding cows for summer production. ✓
- ✓ 10. Feeding calves. ✓
- ✓ 11. Caring for bull. ✓
- ✓ 12. Caring for cow and calf at calving. ✓
- ✓ 13. Caring for growing stock.
- ✓ 14. Handling milk.
- ✓ 15. Dehorning.
- ✓ 16. Providing pasture.
- ✓ 17. Registering animals.
- ✓ 18. Disease control and prevention. ✓
- ✓ 19. Marketing. ✓
- ✓ 20. Showing animals. ✓
- ✓ 21. Keeping records. ✓

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POULTRY

1. Determining the extent of poultrying on the farm.
- ✓ 2. Choosing the breed and variety.
3. Establishing the flock.
- ✓ 4. Housing and equipment.
5. Range and green feed.
6. Breeding and care of ^{breeding stock.} ~~mating~~ pens.
7. Hatching chicks.
8. Brooding chicks.
9. Feeding growing chicks.
10. Fattening poultry for market.
- ✓ 11. Culling the flock for egg production.
12. Disposing of culls.
13. Grading eggs.
14. Candling and packing.
15. Preserving Eggs.
- ✓ 16. Marketing of eggs.
17. Marketing of poultry.
- ✓ 18. Controlling diseases.
- ✓ 19. Controlling insects.
20. Caponizing.
21. Preparing for young chicks.
22. Feeding young chicks.
23. Selecting birds for different purposes (Exhibits)
- ✓ 24. Feeding for egg production.
25. Sanitation.

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26. Trapnesting.
27. Managing flock during winter months.
28. Using lights.
29. Killing and dressing.
30. Financing.
31. Pedigreeing poultry.
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- C. Separates, 917, 903, 800. Agricultural Outlook for Year.
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- C. Va. Breeders of Standard Breed Poultry Ext. B. 74; Cornell Jr. Ext. B. 12; F.B., 1347 p 1-3 American Breeds. F.B., 1052 Asiatic; F.B., 898 Mediteranean. F.B., 1221 Ornamental; F.B., 1251, Bantam;
- D. Poultry Improvement Chart - U.S.D.A., Washington, D.C.
Flock of White Wauandottes - U.S.D.A., Bu. Animal Industry, D.C.

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- A. F.B., 1363; F.B., 1106 F.B., 1108 Care of Baby Chicks.
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- C. F.B., 1116 p 1; F.B., 1331 - Backyard Poultry Keeping.
- D. Johnson's Poultry Charts - M. M. Johnson, Clay Center, Neb.

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- A. F.B., 1413; F.B., 1113 Houses; Va. Ext. B., 93; F.B., 1505
- B. Kaupp (P.C.S. & H) p 183-246, 373-374, 460; Lewis Ch. 678 R. & B. Ch 3,4.
- C. Purdue Ext. B., 57; Cornell B., 139; Ky. Cir. 107; N. J. 152, 115; F.B., 1107 - Brooder Coops; Wis. B., 336, Cir., 184, 208
- D.

5. Range and green feed.
 - A. F.B., 574; F.B., 287; F.B., 1067 p 11-12; Va. Ext. B., 51, p 27-28.
 - B. Montana Cir. 91; Calif. Exp. B., 384.
 - C.
 - D. Feed samples - Purina Mills, 8353 Eights St. St. Louis, Mo.

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 - A. F.B., 1116; Va. Ext. B., 53 p 52-53; F.B., 1167; Va. Ext.B., 51
 - B. Lewis, Ch., 16; R. & B., p 261-309 Excellent; Separate, 917 p 410.
 - C. Kansas, Exp. B. 223
 - D. New Poultry Wrinkles - Pratt Food Co., Phila., Pa.

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 - B. Lewis, Ch. 19, 20; R. & B. p 310-358; Va. Ext. B., 51 p 50-52
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 - D. Charts -"Digestion of Yolk in Chicken's Body and Formation of the Egg." Albert Dickinson Co., Chicago, Ill.

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 - D. Poultry Calendar - Ohio Agricultural College, Ext. Service Columbus, Ohio.
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- A. F.B., 1112; Separate 917 p 413; 1524 p 19; Va. Ext. B. 51 p 59-62.
 - B. Kaupp (P.C.S.& H) p 102-128, 160-165, 413-423; R. & B. p 1-32; Kan Cir. 122.
 - C. U. S. Dept Cir; 31; Ky. Ext. Cir., 167; Cornell B., 258, Moulting. Cornell Cir. 21, Picking the Laying Hen; Kansas Cir. 21. Mich. Ext. B. 21; Pa. Ext. Cir. 87. Very good.
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- A. Market quotations, F.B., 1377
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- B. Kaupp, Ch. 2
- C.
- D.

26. Trapnesting.

- A. F.B., 682
- B.
- C. Kansas Exp. Cir. 99
- D.

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A. Va. Ext. B., 51, Lesson 13.

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C.

D.

28. Using lights.

A. R. & B., p 122-146

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D.

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A.

B. Warren, p. 290-314.

C.

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A.

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SHEEP

1. Deciding upon the number of sheep to keep.
2. Choosing a breed of sheep.
3. Getting started with sheep.
4. Providing houses and equipment.
5. Selecting the breeding stock.
6. Feeding and care of breeding stock.
7. Care of ewes at lambing time.
8. Caring for the ewe and lambs.
9. Docking and castrating.
10. Keeping lambs growing.
11. Feeding the flock.
12. Controlling insects and internal parasites.
13. Controlling diseases.
14. Dipping.
15. Sheep shearing.
16. Marketing of wool.
17. Marketing of sheep and lambs.
18. Providing pasture.
19. Protecting from dogs and other enemies.
20. Butchering sheep.
21. Fitting and showing sheep.
22. Keeping records.

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- C. Ky. B., 243 Good breeding experiment; Cir. 155; B.&S. p 103-124. F.B., 1167; Dep. B., 905 Excellent; Dep. B. 593 good illustrations.
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- C.
- D.

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- A.
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- C.
- D.

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 - A. F.B., 1150 F.B., 1330; T. E. Smith, L.S. & P p 274-285.
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- A. F.B., 1155; F.B., 1330; T. E. Smith, L.S.& P, p 283-285
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- C. F.B., 713, Scab. U. of Ky. 143. Va. Exp. B. 178
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- B. Coffey, p 306-311; B. & S., p 136-138
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- D.

15. Sheep Shearing.

- A.
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- C.
- D.

16. Marketing of wool.

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D.

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C.

D.

20. Butchering.

- A. F.B., 1172, p 6-20
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- C.
- D. Sheep, Mutton and Lamb Cut Charts, Wilson & Co. 4100 Ashland Ave., Chicago, Ill.

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A.

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C.

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D.

SWINE

1. Determining the number of hogs to keep.
2. Choosing the breed.
3. Providing houses and equipment.
4. Selecting breeding stock.
5. Feeding the breeding stock.
6. Care for sow at farrowing.
7. Keeping pigs growing.
8. Keeping quarters sanitary.
9. Castrating.
10. Fattening hogs for market.
11. Eradicating parasites.
12. Preventing diseases.
13. Registering pure breed stock.
14. Buying feeders.
15. Marketing.
16. Exhibiting.
17. Butchering.
18. Curing pork.
19. Pasturing.
20. Keeping records.

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D. H. & M., p 694-695, 702-703; Office of the Sec.
U. S. Dep. of Agri. Cir. 83

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C. Neb. Ext. Cir., 226; Ames, B., 94, Sunshine; Ill Cir. 306

D.

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9. Castrating.

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B. B. & S., p 57-59.

C.

D.

10. Fattening hogs for market.

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C. F.B., 834, Cholera; Wis. Exp. B., 297, Hairless Pigs; F.B., 781 Tuberculosis; Cornell reading course. Lesson 150, Wis. Cir. 169, Abortion, Va. Ext. B., 85.

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13. Registering purebred stock.

A.

B. Smith, p 449-453

C.

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14. Feeding hogs.

A. H.& M., p 599-642 Carbonaceous Conc. p 642-664, Protein Conc; H.&M., p 664-683; Succulent; F.B., 906 Self-feeders.

B. Smith, p 333-349, 280-299; B.& S., p 88-92

C. Dep. B., 1138 Vitamin B; Dep. B., 610 Fish meal; F.B., 873 Feeding Farm Wastes. F.B., 1504, Self-feeding versus Hand Feeding.

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15. Marketing.

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B. Day, p 253-262; Smith, p 362-390; Dep. B., 1440, Prices

C. Yearbook(1922), p 227-269; Kansas, Exp. Cir., 132, Good Plumb, "Marketing Farm Animals.

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16. Exhibiting.

A. Va. Ext., B., 45, p 43; F.B., 1455

B. B. & S., p 84-86.

C. F.B., 822 Fair Classification.

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17. Butchering.

- A. F.B., 1186, p 3-15
- B.
- C. F.B., 913; Neb. Ext. B., 52.
- D.

18. Curing Pork.

- A. Va. Ext. B., 45, p 44-45; F.B., 1186, p 15-44.
- B. Day, p 264-269. Dep. B., 1453, Chusu Skipper as a Pest in Cured Meat.
- C. F.B., 913.
- D.

19. Pasturing.

- A. F.B., 951; F.B., 1437, p 18-21.
- B. Smith, p 153-227 Hogging Down, p 228-238.
- C. Ringing Pigs, B. & S., p 65-66; Ill Exp. B., 247 Feeding Pigs on Pasture.
- D.

20. Keeping records.

- A. 1922 Yearbook, p 220-227 Dep. B., 1381.
- B. Smith, p 350-361; B. & S., p 61-63.
- C. H. & M., p 706-708.
- D.

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1. Determining the extent of turkey raising.
2. Choosing the breed.
3. Securing breeding stock.
4. Hatching and brooding poults.
5. Management of the breeding stock.
6. Care and feeding first week.
7. Fattening.
8. Housing.
9. Controlling diseases and insects.
10. Dressing and Marketing.
11. Keeping records.

Duck Raising

Goose Raising

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TURKEY

1. Determining the extent of turkey raising.
 - A. F.B., 1409 p 1-2
 - B.
 - C.
 - D.

2. Choosing the breed and varieties.
 - A. F.B., 1409 p 2-5.
 - B.
 - C. Ky. Ext. Cir. 178 p 5.
 - D.

3. Securing breeding stock.
 - A. F.B., 1409, p 6
 - B.
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4. Hatching and brooding poults.
 - A. F.B., 1409, p 11-13
 - B.
 - C. Ky Ext. Cir., 178, p 5; N. J., Exp. B., 347.
 - D.

5. Management of the breeding stock.
 - A. F.B., 1409, p 7-9
 - B.
 - C. Ky. Ext. Cir., 178, p 5,8.
 - D.

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6. Care and feeding first week.
 - A.
 - B. See poultry.
 - C.
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7. Fattening
 - A. F.B., 1409 p 15-17
 - B. Mc. Exp. B. 138.
 - C. Ky. Ext. Cir., 178, p 9-11
 - D.

8. Housing.
 - A.
 - B.
 - C.
 - D.

9. Controlling diseases and insects.
 - A. F.B., 1337; F.B., 1409, p 19-22; Va. Ext. Mimeograph Sheets
 - B. R. I., Ext. B. 2 Blackhead; No. 31; Va. Mimeograph Shee No.6146
 - C. Ky., Ext. Cir. 165 Blackhead. Ky. Ext. Cir., 178, p 11
Mites and Lice.
 - D.

10. Dressing and marketing.
 - A. F.B., 1409, p 17-19
 - B.
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 - D.

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11. Keeping records.

A. F.B., 1427 Poultry Accounts.

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A. F.B., 697

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A. F.B., 767

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A. F.B., 1391; F.B., 234

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C.

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WORK STOCK

1. ^{Determining} ~~Deciding~~ the number of work animals needed.
2. Selecting a good work horse.
3. ^{Determining the age of Horses.} ~~Telling horses age.~~
4. Detecting blemishes and unsoundnesses.
5. Detecting and treating diseases and ^{parasites} ~~insects~~.
6. Feeding a work horse.
7. Feed breeding stock.
8. Caring for the mare and foal.
9. Breaking the colt.
10. Providing barns and equipment.
11. Fitting and care of harness.
12. Will it pay to raise work teams or to buy them?
13. Keeping records.
14. ~~Mares.~~ ^{Breeding.}

WORK STOCK

1. Deciding the number of work animals needed.
 - A. F.B., 1298
 - B. Gay, Ch. 13; Separate, 154 U. S. Army Breeds.
 - C. D. Cir., 199 Breeding Morgan Horses; Separate, 692 Stallions Legislation and Horse-breeding Industry.
 - D. Clydesdale Album Pictures and Charts- See Breeders Asso. Page.

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 - A. F.B., 779, Good illustrations; F.B., 619 Description of Breeds; F.B., 952 Light Breeds.
 - B. T. E. Smith, L.S.& P, p 364-392, 393-395; Gay, Ch. 4,5,11
 - C. B.& S., p 215-230; Smith, p 26-61, 110-160; Ohio Ext. B. Vol. 8. No. 15; Dep. B., 487 Judging Horses; North Dakota Ext., B., 8, Judging Draft Horses; Cornell Reading Course Lesson, 113; F.B., 803 Breeding Suggestions.
 - D.

3. Telling a horses age.
 - A. F.B., 779
 - B. Gay, p 150-175
 - C. Kansas, B., 47.
 - D.

4. Detecting blemishes and unsoundness.
 - A. F.B., 1419, Care and Management; F.B., 779
 - B. B.& S., p 197-201; Smith, p 196-207.
 - C. F.B., 179, Horseshoeing.
 - D. Horse Type Chart - Pratt Food Co. Philadelphia, Pa. Percheron Society of Am. - Union Stock Yards, Chicago.

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5. Detecting and treating diseases and insects.
 - A. F.B., 1146, 1097, 954
 - B. T. E. Smith, L.S.& P, p 432-428; Dep. B., 1218, Horse Flies
 - C. Diseases of the Horse, U.S. Dept. of Agri. F.B., 1493
Lice and Mange. Dep. B., 597, Bot Fly; S.D. Exp. B., 95
 - D.

6. Feeding a work horse.
 - A. F.B., 1030
 - B. Gay, Ch. 14; T. E. Smith, L.S.& P., p 401-411;
H. & M., p 330-334
 - C. Conn. Ext. B., 85, 18-19; B. & S., p 231-235; Dep. B.,
929, Cotton Seed Meal; H. & M., p 286-297, 298-300,
Hints on Feeding and Care, p 315-317 Succulent
H. & M., p 310-306, Carbonaceous Conc., p 307-309,
Prot. Conc, 310-315 Carbo. Roughages.
 - D.

7. Feeding the breeding stock.
 - A.
 - B. H. & M., p 319-320, 328-329; Kansas Exp. B., 186
 - C. Tenn. Exp. B., 116, p 66-70; Ill Exp. B., 192-p 427-440;
B 150C
 - D.

8. Caring for the mare and foal.
 - A. F.B., 803 p 11-21; F.B., 1419, Care and Management.
 - B. Gay, Ch. 12; H. & M., p 320-326; B. & S., p 206-210.
 - C. Cornell Reading Course. Vol. 111 No. 56; Cornell Exp. B.
403, p 21-22.
 - D.

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9. Breaking the colt.
 - A. F.B., 1368
 - B. Gay, Ch. 16
 - C. F.B., 667
 - D.

10. Providing barns and equipment.
 - A. F.B., 1419
 - B. T. E. Smith, L.S.& P. p 398-401; Gay, Ch. 15,16,17.
 - C.
 - D.

11. Fitting and care of Harness.
 - A. F.B., 1419, p 14-17; F.B., 1183
 - B. T. E. Smith, L.S.& P. p 413-419; Gay, Ch. 16-17;
B. & S., p 202-204.
 - C. Wash. Ext. B. Series I No. 22
 - D.

12. Will it pay to raise work teams or to buy them?
 - A.
 - B. Cornell Exp. B., 403, p 46-48; Minn. Spec. B., 80
 - C.
 - D. Morgan horses - Bureau of Animal Industry, Washington, D.C.
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13. Keeping records on horse labor.

- A. F.B., 1298, Cost of Using Horses.
- B. T. E. Smith, L.S.& P., p 424-430; Dep. B., 560, Cost of Horse Labor.
- C. Mo. Exp. B., 152; Cal. Exp. B., 401; H.& M. p 293-296, Reducing Cost. H. & M. p 284-286. Factors Influencing Work Done By Horse. H. & M., p 317-318, Cost of Keep.
- D.

14. Mules.

- A. F.B., 1341 Mule Production.
- B. B. & S., p 229-230; H. & M., p 332-334; Smith, p 187-195.
- C. Ky. Exp. B., 212; Miss. Exp. B., 212; Ill. Cir. 276, Feeding Soybeans.
- D. Mules Chart - U. S. D. A., Bu. of Animal Ind., Washington, D.C.

BEES

1. Determining the number of colonies to be kept.
2. Securing stock and equipment.
3. Controlling swarm.
4. Transferring bees.
5. Summer care of bees.
6. Wintering bees.
7. Controlling disease and insect pests.
8. Storing honey.
9. Extracting and preparing honey for market.
10. Marketing honey and by-products.
11. Insuring honey plants.
12. Improving the stock.
13. Keeping records.

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 J. B. Lippincott & Co.
3. **The A.B.C. and X.Y.Z. of Bee Culture**
 A. I. Root Co., Medina, Ohio

BEES

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 - A. F.B., 447; F.B., 503, p 5-6.
 - B. Pellett, p 9-17; Dep. B., 685, p 4.
 - C. Ky. Ext. Cir., 69, p 1,18-20.
 - D.

2. Securing stock and equipment.
 - A. F.B., 1039, p 4-12; 1222, p 11-12.
 - B. Pellett, p 18-35; Dep. Cir. 222, Double-Walled Beehives.
 - C. Tex. Exp. Cir. 35, Queen Rearing; Mo. Exp. B., Farm Bee Keeping.
 - D.

3. Controlling swarm.
 - A. F.B., 1039, p 20-33; F.B., 1198.
 - B. Phillips, p 265-285; Dep. B., 685, p 10-11.
 - C. Pettitt, p 156-160; p 22-23; F.B., 447, p 30.
 - D.

4. Transferring bees.
 - A. F.B., 961.
 - B. Phillips, p 245-249; Mich. Spec. B., 76, Transferring.
 - C.
 - D.

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5. Summer care of bees.

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B. Dep. B., 1339; Effect of Weather on Weight of Bees During the Honey Flow.

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6. Wintering bees.

A. Dep. B., 1222, Growth and Feeding; 1328, Flight Activities; F.B., 442.

B. Phillips, Ch. 20; Dep. B., 1222, Feeding Honey Bees Larva, p 25-34.

C. Dep. B., 685, p 11; F.B., 447, p 38-40; Dep. B., 988, Heat Production; F.B., 1014, Wintering in Cellars; F.B., 1012, Preparing for Outdoor Wintering; Pellett, p 129-135, Feeding Bees, p 234-256; F.B., 1012, F.B., 961.

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7. Controlling disease and insect pests.

A. F.B., 442; Dep. Cir., 287; 234, Bee Louse; F.B., 1084, Amer. Foul Brood.

B. Phillips, Ch. 22; (Mich. Special B., No. 107, Diseases)

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8. Storing honey.

A. F.B., 1039 p 36-37.

B.

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9. Extracting and preparing honey for market.
 - A.
 - B. Pellett, p 165-194.
 - C.
 - D.
10. Marketing honey and by-products.
 - A. F.B., 447, p 37.
 - B. Phillips, Ch. 23; Pellett, p 257-286.
 - C. Dep. Cir., 364, Color Grading.
 - D.
11. Insuring honey plants.
 - A.
 - B. Phillips, Ch. 21; Pellett, p 46-86.
 - C.
 - D.
12. Improving the stock.
 - A.
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 - C. Mim. B., 38, "Management of Bees" cause of dwindling.
 - D.
13. Keeping records.
 - A. F.B., 511, Bookkeeping.
 - B. F.B., 572, Cost Accounting.
 - C.
 - D.

Farm Management
~~FARM BUSINESS~~ (Management)

1. Getting acquainted with the home farm.
2. Surveying the farm.
3. Mapping the farm.
4. Inventorying.
5. To what extent should each farm enterprise be carried out.
6. Securing capital and maintaining credit.
7. Improving my farm layout.
8. Determining per cent return on money invested.
9. Determining the kind and number of buildings.
10. Maintaining soil fertility.
11. Determining the records to keep.
12. Rotating crops.
13. Insuring crops and buildings.
14. Paying taxes.
15. Securing and distributing farm labor.
16. Deciding the number of work animals to keep.
17. Buying and caring for farm machinery.
18. Insuring buildings and crops.
19. Buying materials.
20. Choosing and buying a farm.
21. Renting a farm.
22. Marketing.
23. Determining the proper time and methods for plowing.
24. Determining the extent and improvement of livestock.
25. Handling manure.
26. Making home improvement.
27. Establishing relations with neighbors, organizations and business

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institutions.

28. Drainage.
29. Farm lighting and electrification.
30. Water supply.
31. Plumbing and sewerage disposal.
32. Heating.
33. The pumping and piping of water.
34. Clearing land.
35. Terracing.
36. Fencing.
37. Farm explosive.

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 - B. Dept. Cir., 83; F. B. 1121, Factors that make for success.
 - C. Warren, p. 535-564, Characteristics of successful farming. Dept. B. 1070, Farm management in N. C; Va. Exp. B. 240, Agri. situation in Roanoke and territory; Bu. of Plant Ind. B. 259.

2. Surveying the farm.
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 - B. Davidson p. 16-27.
 - C. U. S. D. A. B. 41, Surveys made in Ind, Ill. and Iowa.
 - D.

3. Mapping the farm.
 - A.
 - B. Davidson, p. 28-33.
 - C. F. B. 1132, Planning the farmstead.
 - D.

4. Inventorying.
 - A. F. B. 1182; F. B. 1139.
 - B. Cornell Ext. B. 13, Balance sheet.
 - C. Dept. B. 1224, Relation of land income to land value.
 - D.

5. To what extent should each farm enterprise be carried out.
 - A. F. B. 1121; F. B. 1421, Success on 80 acres in Ind; F. B. 1463.
 - B. Warren, p. 239-289, Size of farm.
 - C. F. B. 981; Ky. Ext. Cir. 172, Why some farms pay.
 - D.

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6. Securing capital and maintaining credit.
 - A. F. B. 792; Dept. B. 1048, Bank loans; Dept. Cir. 197, Credit unions; Dept. B. 1047, Mortgage.
 - B. Warren, p. 290-314; Farm Mortgages (14 census 1920)
 - C. Farm loan primer, Treasurer Dept. Fed. farm loan board.
 - D.

7. Improving my farm layout.
 - A. F. B. 1121.
 - B. Warren, p. 365-401.
 - C. F. B. 1132, planning the farmstead.
 - D.

8. Determining per cent return on money invested.
 - A.
 - B.
 - C. Dept. Cir. 83; Dept. B. 1382, Cost of living.
 - D.

9. Determining the kind and number of buildings.
 - A. F. B. 1342, Dairy barns; F. B. 1350, Beef cattle barns; F. B. 1393, Ventilation.
 - B. Warren, p. 394-401, Arrangement. 261, 291-295 Cost; Minn. Spec. B. 98.
 - C. Ind. Ext. B. 73, Tenant houses. U. of Purdue Cir. 100. Ramsower p. 73-91.
 - D.

10. Maintaining soil fertility.
 - A.
 - B. Warren, p. 183-202.

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11. Determining the records to keep.

A. F. B. 1182; F. B. 5-11, p. 20-22, bookkeeping; F. B. 964, household.

B. Warren, pp. 428-493, 553-564; Iowa Exp. B. 96; Ill. Exp. B. 252.

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12. Rotating crops.

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13. Insuring crops and buildings.

A. Dept. B. 1043, Crop insurance; Dept. B. 912, Hail insurance.

B. Agriculture credit, farmers mutal fire insurance.

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14. Paying taxes.

A.

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C. Wis. Exp. B. 393, Tax burdens; Mich. Cir. B., 100, Tax guide.

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15. Securing and distributing farm labor.

- A. F. B. 989, Better use of labor; F. B. 614, Hogging down, U. S. D. A. Bu. of A. Ind. Cir. 122.
- B. Warren, p. 330-354; Dept. B. 1285, Truck farm labor in N. J; Dept. B. 1292, Ga.
- C. F. B. 1121, Factors that make for success; F. B. 1008, Harvesting with livestock; Dept. B. 1000, Labor requirements of field crops; Dept. B. 412, 814, 422, Separate 890, Operations, Separate 789, Housing; Ky. Exp. B. 274, Labor and materials.

16. Deciding the number of work animals to keep.

- A. F. B. 1278, Tractors on southern farms.
- B. Separate 825.
- C. Ill. Exp. B. 231, The horse and the tractor.
- D.

17. Buying and caring for farm machinery.

- A. F. B. 947, Care and repair of implements; F. B. 946.
- B. Warren, p. 355-363; Dept. B. 997, The cost and utilization of power from tractors.
- C. F. B. 1004, Tractors; F. B. 1278, Tractors; Md. Ext. B. 33; F.B. 1201; F. B. 1300, Choosing a tractor.

18. Insuring buildings and crops.

- A. Dept. B. 840, Records for local farmers fire insurance co.
- B. Dept. B. 1043, Crop insurance; F. B. 1512, Protection from lightening.
- C.
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19. Buying materials.

- A.
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20. Choosing and buying a farm.

- A. F. B. 1088; Dept. B. 1322, Economy of ownership; F. B. 1271, Available land; F. B. 1385.
- B. Warren, p. 517-534; Dept. B. 968, Buying a farm with land bank loans.
- C. F. B. 1385, Undeveloped regions; Miss. Ext. B. 10; Dept. B. 968, Buying with land bank loans; Separate 897.
- D.

21. Renting a farm.

- A. Va. Exp. B. 249; F. B. 1164, Farm loan contract; Dept. B. 1432; Dept. B. 1404.
- B. Warren, p. 321-329; Dept. B. 1269, Relation of land tenure to plantation organization; Farm tenure (14th census 1920); Iowa Exp. Cir. 87.
- C.
- D.

22. Marketing.

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- A. F. B. 1045, Tractor plowing.

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- B. Sanders, W. H. job 7; H. & W., p. 70-72; Bowman, p. 145-153.
- C. The Science and Art of Plowing, John Deer & Co. p. 32.
- D.
24. Determining the extent and improvement of livestock.
- A.
- B. Warren, p. 203-238.
- C. F. B. 1446, Cow testing.
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- A. S. R. S. Doc. 30.
- B. Warren, p. 197-202.
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26. Making home improvements.
- A. F. B. 927, Home conveniences; F. B. 771, Home-made fireless cooker.
- B. F. B. 1171, Flowers; F. B. 1381, Perennials; F. B. 1087, Beautifying the farmstead.
- C. F. B. 1302, How to get rid of rats; Dept. B. 1214, Farm living; F. B. 750, Roses; Dept. B. 1466; 1382, standards of living; F. B. 623, Ice houses.
- D. F. B. 842, Lightening rods; F. B. 904, Fire prevention; Cornell Lesson 121, B. 320.
27. Establishing relations with neighbors, organizations and business institutions.
- A. F. B. 1325, Rural planning; F. B. 1032, Cooperative Truck Route.
- B. F. B. 1144, Cooperative marketing; F. B. 1173, Community buildings.
- C. F. B. 993, Cooperative bull asso; Public health B. 70, 68.

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- B. Dept. Cir. 270; Dept. Cir. 344, Robb & Behrends, p. 243-292; Leveling, p. 210-242.
- C. F. B. 1131, Tile trenching machinery; Dept. B. 854, The flow in drain tile; Wis. B. 139, 284, 351; Md. B. 186; N. C. B. 234; Mo. Ext. Cir. 34; Davidson, p. 49-110; Minn. Exp. B. 216, 217.
- D.

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- A.
- B. Selvidge & Allton, Bending pipe; Davidson, p. 506-524.
- C. F. B. 1430, Power for the farm from small streams; Wis. Ext. Cir. 163.
- D. Crawshaw & Lehmann Chapt. 32, Electrical and gas plants. Ramsower Ch. 9, Installing electric system; Purdue Exp. Cir. 127.

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- B. F. B. 1448; Ramsower, p. 145-161; Va. Engineering Ext. B. 11.
- C. Wis. Exp. B. 353, Farm home; Wash. Ext. B. 91; Ill. Exp. Cir. 303 N. Y. Ext. B. 50; Minn. Ext. B. 54, 55, 61; What system shall I install; F. B. 828, Reservoirs; Pub. Health B. 70, U. S. Treasurer Dept.
- D.

31. Plumbing and sewerage disposal.

- A. F. B. 1426; F. B. 1460, Repairs; F. B. 1227, Farm home sewerage.

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37. Farm Explosive.

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C. Minn. Ext. B. 110; Wis. Ext. B. 164.

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- B. In Miners. Safety and health almanac 1922, p. 45-48.
- C. Separate, 712, Good illustrations; Ky. Ext. Cir. 31; Public Health B. 101, Public Health Report 504; N. Y. Ext. B. 48; Va. Health B. Vol. 17, No. 6; Robb & Behrends, Ch. 10; Ramswoer, p. 230-245.

32. Heating.

- A. F. B. 1174, Pipless furnaces; F. B. 1194.
- B. Crawshaw & Lehmann Ch. 32; Davidson, p. 525-530.
- C. Kansas Exp. B. 11, Water heating in the home.
- D.

33. The pumping and piping of water.

- A. Davidson, p. 486-496.
- B. Robb & Behrend, Ch. 9; Smith, p. 233-245.
- C. Ky. Ext. Cir., 139; Ramsower, p. 162-187.
- D.

34. Clearing land.

- A. F. B. 1526.
- B. Dept. Cir. 270; Dept. Cir. 344; Wis. Exp. B. 320; Wis. Ext. B. 295.
- C. Wis. Ext. Cir. 148; Stump puller; Minn. Exp. B. 163.

35. Terracing.

- A. F. B. 1386.
- B.
- C. Dept. B. 512.
- D.

36. Fencing.

- A.

FARM SHOP

- I. Farm Woodworking skills.
 1. Reading blueprints.
 2. Making working drawings.
 3. Use and care of tools.
 4. Learning to recognize different woods.
 5. Making a bill of lumber.
 6. Setting nails.
 7. Sowing.
 8. Using a square.
 9. Using a marking gauge.
 10. Using a chisel.
 11. Hewing with hatchet.
 12. Using a plane.
 13. Using auger bit.
 14. Driving screws.
 15. Using glue.
 16. Mitering.
 17. Repairing small jobs.
 18. Fitting handles.
 19. Sharpening tools.
 20. Filing.

General References for Woodworking

1. Rochl Farmers Shop Book - Rochl.
 Bruce Publishing Co.
2. Struck Construction and Repair Work on the Farm.
 Houghton Mufflin Co.
3. C. & L. Farm Mechanics - Crawshaw & Lehmann.
 The Manual Arts Press.
4. Smith Agricultural Mechanics.
 Lippincott Co.
5. Reading Blueprints - Shallenberger - The Manual Arts Press.

Special Reference for Woodworking.

Apply for a list of sources of illustrative material to E. H. Shinn, Agricultural Education Service, U. S. D. A., Washington, D. C.

Blueprints of designs of farm work shops, U. S. D. A. Bureau of Public Roads, Washington, D. C.

A Hundred Farm Helps - Southern Pine Association, New Orleans, La.

Ericson - Glass and Glazing - Ericson - The Manual Arts Press.

WOODWORKING

1. Reading blueprints.
 - A.
 - B. Smith, p. 43-52.
 - C. Reading blueprints - Shallenberger.
 - D. Blueprints - U. S. D. A., Washington, D. C. Office of Pub. Road and Rur. Eng.

2. Making working drawings.
 - A.
 - B. Struck, p. 333-340; Rochl, p. 407-422.
 - C. Smith, p. 33-42.
 - D. Corn crib and granary blueprint working plans. John Deer Co., Molin, Illinois.

3. Use and care of tools.
 - A.
 - B. Struck, p. 12-26; Rochl, p. 9-11; C. & L., p. 28-78.
 - C. Smith, p. 21-32.
 - D. Charts of Amer. Wire Nails - Amer. Steel and Wire Co.

4. Learning to recognize different woods.
 - A.
 - B. Set of 30 samples of commercially Impt. woods of U. S.
 - C. Loaned by U. S. D. A. Forest Service, Washington, D. C.
 - D. Desston Lumber Co., Handbook - Henry Desston & Son, Phil.

5. Making a bill of lumber.
 - A.
 - B. Struck, p. 39-62; C. & L., p. 57-63.
 - C.
 - D.

6. Setting nails.

A.

B. Smith, p. 60-66.

C.

D. Simonds Guide for Carpentry - Simonds Saw & Steel Co.
Chicago, Ill.

7. Sawing.

A.

B. Rochl, p. 13; C. & L., p. 33-45.

C.

D.

8. Using a square.

A.

B. Rochl, p. 12-13; A. B. C. Steel Square and its practical use-
Hodgson.

C. How to use bits - The Irwin Auger Bit Co., Wilmington, Ohio.

D. The Stanley Rule and Level Plant Co., New Britain, Conn.

9. Using a marking gauge.

A.

B. Rochl, p. 13.

C.

D.

10. Using a chisel.

A.

B. Rochl, p. 15; C. & L., p. 66-71.

C.

D.

WOODWORKING

11. Hewing with hatchet.

- A.
- B. Smith, p. 27.
- C.
- D.

12. Using a plane.

- A.
- B. Rochl, p. 12, 17; C. & L., p. 46-53.
- C.
- D.

13. Using auger bit.

- A.
- B. Rochl, p. 15-16; C. & L., p. 54-56.
- C.
- D.

14. Driving scores.

- A.
- B. Smith, p. 63-65.
- C.
- D.

15. Using glue.

- A.
- B. Smith, p. 66.
- C.
- D.

WOODWORKING

16. Metering

- A.
- B. Rochl, p. 52; Smith, p. 68-69.
- C.
- D.

17. Repairing small jobs.

- A.
- B.
- C. F. B. 347; F. B. 816- Minor articles of farm equipment.
- D.

18. Fitting handles.

- A.
- B. Rochl, p. 297-300.
- C.
- D.

19. Sharpening tools.

- A.
- B. Struck, p. 27-38; Rochl, p. 301-322.
- C. Cornell, Ext. B. 155, Very good.
- D. Desston Saw Chart - Henry Desston & Sons, Phila, Pa.

20. Filing.

- A.
- B. Padebaugh, p. 27-30.
- C. Filing Saws - E. C. Atkins & Co., 402 S. Ill. St., Ind. Ind.
- D. Desston File Chart - Henry Desston & Son, Phila. Pa.

Farm Machinery Repairs and Adjustments Skills.**I. Repair, adjust and assemble the following:**

1. Plow.
2. Cultivator and harrow.
3. Corn planter.
4. Grain drill.
5. Manure spreader.
6. Mower.
7. Grain binder.
8. Sharpening discs on harrow.
9. Oiling and greasing machines.
10. Cleaning and storage of machinery.
11. Caring for a tractor.
12. Operating and repairing threshing machine.

FARM MACHINERY

General References for Farm Machinery

1. Radebaugh Repairing Farm Machinery and Equipment.
The Bruce Publishing Co.
2. C. & L. Farm Mechanics - Crawshaw & Tehmann.
The Manual Arts Press.
3. Radebaugh Repairing Farm Machinery and Equipment.
The Bruce Publishing Co. - G. H. Radebaugh.
4. Davidson Agricultural Engineering - Davidson.
Webb Publishing Co.

Special Reference for Farm Machinery.

1. I. H. C. Catalog No. 23 - Farm Operating Equipment.

1. Repairing and adjusting plow.
 - A. F. B. 946 - Davidson, p. 199-210.
 - B. Radebaugh, p. 100-103; C. & L., p. 262-275, 298-302.
 - C. Ramsower, p. 245-272; I. H. C. Catalog, No. 23.
 - D. Farm Mechanics 104 Farm Mechanics Pub. Office, Chicago, Ill.

2. Repairing and adjusting cultivator and harrow.
 - A. F. B. 946, p. 6-9.
 - B. Radebaugh, p. 108-111; C. & L., p. 303; Davidson, p. 211-222, 237-242.
 - C. Ramsower, p. 273-300; I. H. C. Catalog No. 23.
 - D. Illustrations of Farm Operating Equipment - McCormic Deering.

3. Repairing and adjusting corn planter.
 - A.
 - B. C. & L. p. 284-285, 307-309; Ramsower, p. 301-315.
 - C. I. H. C. Catalog, No. 23; Davidson, p. 231-236.
 - D.

4. Repairing and adjusting graindrill.
 - A.
 - B. C. & L., p. 286-287, 305-307; Ramsower, p. 315-330.
 - C. I. H. C., Catalog No. 23; Davidson, p. 223-230.
 - D. Illustrations of Int. Harvester Farm Operating Equipment. International Harvester Co., Chicago, Illinois.

5. Repairing and adjusting manure spreader.
 - A.
 - B. C. & L., p. 310-312; Ramsower, p. 333-353.
 - C. I. H. C. Catalog No. 23; Davidson, p. 292-296.
 - D.

FARM MACHINERY

6. Repairing and adjusting mower.
 - A. F. B. 947.
 - B. Radebaugh, p. 113-115; C. & L., p. 313-316; Ramswoer, p. 354-363.
 - C. I. H. C., Catalog No. 23; Davidson, 258-263.
 - D.

7. Repairing and adjusting grain binder.
 - A. F. B. 947.
 - B. C. & L., p. 316-317; Ramswoer, p. 380-398.
 - C. I. H. C. Catalog 23; Davidson, p. 244-250.
 - D.

8. Sharpening discs on harrow.
 - A.
 - B. C. & L., p. 303-304.
 - C.
 - D.

9. Oiling and greasing machinery.
 - A.
 - B. Radebaugh, p. 229-243.
 - C. Internal Combustion Engines and Tractors, I. H. C.
 - D.

10. Cleaning and storage of machinery.
 - A.
 - B.
 - C.
 - D.

FARM MACHINERY

11. Caring for tractor.

- A. F. B. 1300, F. B. 1296; F. B. 1004; F. B. 963.
- B. Dept. B. 1348.
- C. N. J. Exp. B. 388 - Tractor farming - F. B. 1093.
Cal. Exp. B. 349 - Kansas Exp. Cir 13 - Troubles.
- D. Overhauling, McCormic Deering 1-20, p. 15-30 Tractor,
I. H. C. Co.

12. Operating and repairing threshing machine.

- A. F. B. 991.
- B.
- C.
- D.

**Soldering and Sheet Metal Work
Skills.**

1. Making a fire pot.
2. Making soldering flux.
3. Lighting a blow torch.
4. Tinning a soldering iron.
5. Soldering tin.
6. Soldering copper and brass.
7. Soldering zink.
8. Soldering iron and steel.
9. Soldering lead.
10. Making a sheet metal roof.

SOLDERING AND SHEET METAL WORK**General References for Soldering**

1. Radebaugh Repairing Farm Machinery and Equipment.
The Bruce Publishing Co.
2. Robb & B. Farm Engineering - Robb and Behrends.
John Wiley Co.
3. C. & B. Farm Mechanics - Crawshaw and Lehmann.
The Manual Arts Press.
4. Trew and Bird - Sheet Metal Work - Trew and Bird.
The Manual Arts Press.

SOLDERING AND SHEET METAL WORK.

1. Making a fire pot or lighting a blow torch.
 - A.
 - B. Rochl, p. 293-296; C. & L., p. 234-242.
 - C.
 - D.

2. Making a soldering flux.
 - A.
 - B. C. & L., p. 235-237.
 - C.
 - D.

3. Lighting a blow torch.
 - A.
 - B.
 - C.
 - D.

4. Tinning a soldering iron.
 - A.
 - B. Robb & B., p. 177-181; C. & L., p. 237-238.
 - C.
 - D.

5. Soldering tin.
 - A.
 - B. Robb & B., p. 164-168; C. & L., p. 239-254.
 - C.
 - D.

SOLDERING AND SHEET METAL WORK.

6. Soldering copper and brass.

A.

B. Robb & B., p. 172-174.

C.

D.

7. Soldering zinc.

A.

B.

C.

D.

8. Soldering iron and steel.

A.

B. Robb & B., p. 168-172.

C.

D.

9. Soldering lead.

A.

B. Robb & B., p. 174-176.

C.

D.

10. Making a sheet metal roof.

A.

B.

C.

D.

Belt Work Skills

1. Joining the ends of a belt with a rawhide thong.
2. Joining the ends of a belt with a wire lace.
3. Joining the ends of a belt with a rigid metal brace.
4. Joining the ends of a belt with a jointed stamped metal brace.
5. Joining the ends of a belt by splicing and gluing.

BELT WORK

General References for Belt Work

1. Struck Construction and Repair Work for the Farm.
F. F. Struck - Houghton Mefflin Co.
2. Rochl Farmers Shop Book - L. M. Rochl.
The Bruce Publishing Co.
3. Robb & B. Farm Engineering - Robb & Behrends.
John Wiley & Son.
4. Radebaugh Repairing Farm Machinery and Equipment.
The Bruce Publishing Co. - Radebaugh.

BELT WORK

1. Joining the ends of a belt with a rawhide thong.
 - A.
 - B. Struck, p. 353-355; Rochl, p. 399-400; Robb & B., p. 131-142.
 - C. Robb & B., p. 155-160; Radebaugh, p. 223-224.
 - D.

2. Joining the ends of a belt with a wire lace.
 - A.
 - B. Rochl, p. 401; Robb & B., 143-144; Radebaugh, p. 221-222.
 - C.
 - D.

3. Joining the ends of a belt with a rigid metal brace.
 - A.
 - B. Robb & B., p. 144-145.
 - C.
 - D.

4. Joining the ends of a belt with a jointed stamped metal brace.
 - A.
 - B. Robb & B., p. 145-147.
 - C.
 - D.

5. Joining the ends of a belt with a belt by splicing and gluing.
 - A.
 - B. Robb. & B., p. 147-148; Radebaugh, p. 218-220.
 - C.
 - D.

BELT WORK

6. Selection, care and dressing a belt.

A. F. B. 1183, p. 16-19.

B. Radebaugh, p. 209-217, 226-228.

C.

D.

Rope Work
Skills

1. Finishing the end of a rope.
2. Making splices.
3. Making hitches.
4. Tying knots.
5. Making a rope halter.
6. Selecting kinds and grades of rope.
7. Caring for rope.

ROPE WORK

General References for Rope Work

1. Struck Construction and Repair Work for the Farmer.
Houghton Meffin Co. F. T. Struck.
2. Rochl Farm Shop Book - L. M. Rochl.
The Bruce Publishing Co.
3. Robb & B. Farm Engineering - Robb & Behrends.
John Wiley & Son.

1. Finishing the end of a rope.

A.

B. Struck, p. 342-345; Rochl, p. 323-328; Ill. Exp. B. - Ropes

C. Robb & B., p. 49-56; Minn Exp. B., 136, p. 12-19.

D. Columbian Rope and Twine Co. - Columbian Rope Co.
Auburn, N. Y.

2. Making splices.

A.

B. Rochl, p. 347-353.

C. Robb & B., p. 92-102; Iowa Ext. B. 24, p. 35-40.

D. Rope Cord, J. Rauschenberger Co., 83 W. Water St.
Milwaukee, Wis.

3. Making hitches.

A.

B. Struck, p. 349-351; Rochl, p. 339-346; Cornell Ext. B. 62.

C. Robb & B., p. 57-71; Minn. Exp. B. 136, p. 37-45.

D.

4. Tying Knots.

A. Robb & B., p. 71-92.

B. Struck, p. 345-349; Rochl, p. 328-338; Cornell Ext. B. 13.

C. Knots the Sailors Use - Whitlock Cordage Co.

D. Columbia Knot and Splice Chart - Columbian Rope Co. Auburn, N. Y.

5. Making a rope halter.

A.

B. Rochl, p. 351-353; Cornell Ext. B. 62, p. 41.

C. Robb & B., p. 102-106; Minn. Exp. B. 136.

D.

ROPE WORK

6. Selecting kinds and grades of rope.

A.

B.

C. Ill. Exp. Cir., p. 5.

D.

7. Caring for rope.

A.

B.

C. Ill. Exp. Cir., 309, p. 6-8.

D.

IRON WORK
Skills

Cold

1. Threading and Topping.
2. Binding iron.
3. Curring with chisel.
4. Drilling.
5. Sawing.
6. Riveting.

Hot

7. Building and maintaining forge fire.
8. Measuring and holding.
9. Heating.
10. Straightening and drawing out.
11. Bindings round and rectangular stock.
12. Twisting.
13. Punching.
14. Cutting and welding.
15. Forging tool steel.
16. Annealing.
17. Shaping.
18. Tempering.
19. Punching.

IRON WORK

General References for Iron Work.

1. Selvedge and Allton Blacksmithing.
The Manual Arts Press.
2. Rochl Farm Shop Book - L. M. Rochl.
The Bruce Pub. Co.
3. Smith Agricultural Mechanics - R. H. Smith.
Lippincott Co.
4. Radebaugh Repairing Farm Machinery and Equipment.
The Bruce Pub. Co. - G. H. Radebaugh.
5. Trew and Bird Sheet Metal Work - Trew and Bird.
The Manual Arts Press.
6. Willoughby Fundamentals of House Wiring - Willoughby
The Manual Arts Press.

1. Threading and Topping.

A.

B. Rochl, p. 279-281; Radebaugh, p. 32-37, 166-178.

C.

D.

2. Bending iron.

A.

B. Smith, p. 200.

C.

D.

3. Cutting with chisel.

A.

B. Smith, p. 211-212; Radebaugh, p. 73-75.

C.

D.

4. Drilling.

A. Smith, P. 208-209; Radebaugh, p. 153-164.

B. Rochl, p. 278-281; Radebaugh, p. 153-165.

C. Selvidge & Allton, p. 69-70 - Removing broken bolts.

D.

5. Sawing.

A.

B. Rochl, p. 285 - Selvidge & Allton, p. 71-72.

C. Smith, p. 212.

D.

6. Riveting.

A.

B. Rochl, p. 275-277; Selvidge & Allton, p. 67-68.

C. Smith, p. 209-210.

D.

Iron Work - Hot.

7. Building and maintaining forage fires.

A.

B. Rochl, p. 285-286; Selvidge & Allton, p. 13-14.

C. C. & L., p. 192-198; Smith, p. 197-199.

D.

8. Measuring and cutting.

A.

B. Selvidge & Allton, p. 18-20.

C.

D.

9. Holding and heating.

A.

B. Rochl, p. 287; Selvidge & Allton, p. 15-16-17.

C.

D.

10. Straightening and drawing out.

A. Rochl, p. 288.

B. Selvidge & Allton, p. 21-22; C. & L., p. 201-205.

C. Smith, p. 201.

D.

IRON WORK - Hot

11. Bending round and rectangular stock.
 - A.
 - B. Rochl, p. 288; Selvidge & Allton, p. 23-26.
 - C.
 - D.

12. Twisting and upsetting.
 - A.
 - B. Rochl, p. 289; Selvidge & Allton, p. 27-29.
 - C. Smith, p. 200.
 - D.

13. Punching and heading.
 - A.
 - B. Selvidge & Allton, p. 30-34.
 - C.
 - D.

14. Cutting and welding.
 - A.
 - B. Selvidge & Allton, p. 42-51; C. & L., p. 213-218.
 - C. Smith, p. 203-208; Radebaugh, p. 80-82.
 - D.

15. Forging tool steel.
 - A.
 - B. Selvidge & Allton, p. 52.
 - C.
 - D.

16. Annealing.

- A.
- B. Selvidge & Allton, p. 53.
- C.
- D.

17. Shaping.

- A.
- B. Smith, p. 216-232.
- C.
- D.

18. Tempering and hardening.

- A.
- B. Selvidge & Allton, p. 54-57.
- C.
- D.

19. Punching.

- A.
- B. Rochl, p. 287.
- C.
- D.

HARNESS REPAIR
Skills

1. Waxing thred.
2. Making a harness clamp.
3. Splicing a strap.
4. Attaching buckle ring snap.
5. Making a hane strap.
6. Repairing a trace.
7. Repairing, cleaning and oiling harness.
8. Riveting.

HARNES REPAIR**General References for Harness Repair**

1. Struck Construction and Repair Work for the Farm.
 Houghton Mefflin Co. F. T. Struck.

2. Rochl Farm Shop Book - L. M. Rochl.
 The Bruce Publishing Co.

HARNESS REPAIR

1. Waxing thred.

A.

B. Struck, p. 361-362; Rochl, p. 358-365.

C. Cornell Reading Course, Lesson 160, p. 45-49.

D.

2. Making a harness clamp.

A.

B. Struck, p. 365-367; Rochl, p. 382-395.

C.

D.

3. Splicing a strap.

A.

B. Rochl, p. 367-269.

C. Cornell Reading Course, Lesson 160, p. 50-55.

D.

4. Attaching buckle ring snap.

A.

B. Rochl, p. 370-372, 375.

C. Cornell Reading Course, Lesson 160, p. 56-60.

D.

5. Making a hane strap.

A.

B. Struck, p. 362-366; Rochl, p. 372-374-381.

C. Cornell Reading Course, Lesson 160, p. 60-76.

D.

HARNES REPAIR

7. Repairing, cleaning and oiling harness.
 - A. F. B. 1183 - The care of leather, p. 13-16.
 - B. Struck, p. 367-368; Rochl, p. 397.
 - C.
 - D.

8. Riveting.
 - A.
 - B. Struck, p. 364.
 - C.
 - D.

**CONCRETE
Skills**

1. Mixing concrete.
2. Making concrete forms.
3. Pouring, mixing and troweling.
4. Making a concrete walk.
5. Making a concrete watering trough.
6. Making a concrete floor.
7. Making a concrete foundation.
8. Making a concrete dipping vat.
9. Making a concrete fence post.
10. Making a concrete hot bed.

CONCRETE

General References for Concrete.

1. Struck Construction and Repair Work for the Farm.
Houghton Mufflin Co. F. T. Struck.
2. Robb & B. Farm Engineering - B. B. Robb and F. G. Behrends.
John Wiley & Sons.
3. C. & L. Farm Mechanics - Cranshaw & Leamon.
The Manual Arts Press.

Special Reference for Concrete.

1. A. C. Handbook on Cement - Alpha Portland Cement Co.
Chicago, Illinois.
2. Atlas Handbook - Concrete Construction - Atlas Portland Cement.
Co., 25 Broadway, New York.

1. Mixing concrete.

- A. F. B. 481, p. 3-11; F. B. 1279; F. B. 1480, Small Construction jobs.
- B. Struck, p. 268-270; Robb & B., p. 329-349; C. & L. P. 111-130.
- C. A. C. Handbook, p. 19; Atlas Portland Cement Co. p. 2-43.
- D. Manual Training Course in Concrete - Portland Cement Co.

2. Making Concrete forms.

- A. F. B. 481, p. 12-17.
- B. Struck, p. 274-278; C. & L., p. 131-139.
- C. Manual Training Course in Concrete - Portland Cement Co.
- D. A. C. Handbook, p. 21-24; Atlas Handbook, p. 58-87.

3. Pouring, mixing and troweling.

- A.
- B. C. & L., p. 139-146.
- C. Manual training course in concrete - Portland Cement Co.
- D. Portland Cement Samples - Portland Cement Co.

4. Making a concrete walk.

- A. C. & L., p. 146-152; A. C. Handbook, p. 16, 64-69.
- B. Struck, p. 278-281; Robb & B., p. 293-297.
- C. Concrete Improvements - Marquette Cement Co., Chicago, Ill.
- D. Alpha Cement Co., How to use It, Alpha Portland Cement Co. Easton, Pa.

5. Making a concrete watering trough.

- A. A. C. Handbook, p. 24-25, 89.
- B. Robb & B., p. 323-327; C. & L., p. 168-169.
- C. Manual Training Course in Concrete - Portland Cement Co.
- D.

6. Making a concrete floor.
 - A. F. B. 481.
 - B. Robb & B., p. 297-303.
 - C. A. C. Handbook, p. 64-70, 78, 80, 82.
 - D. Cement, raw material. Atlas Portland Cement Co., 25 Broadway, New York.

7. Making a concrete foundation.
 - A.
 - B. Robb & B., p. 313-323; Radebaugh, p. 53-69.
 - C. A. C. Handbook, p. 22, 33, 35, 62, 64, 69-71, 84.
 - D.

8. Making a concrete dipping vat.
 - A.
 - B. C. & L., p. 182-184.
 - C.
 - D.

9. Making a concrete fence post.
 - A.
 - B. Robb & B., p. 304-308; C. & L., p. 158-161.
 - C. A. C. Handbook, p. 57-61.
 - D.

10. Making a concrete hot bed.
 - A.
 - B. C. & L., p. 155-158.
 - C. A. C. Handbook, p. 90.
 - D.

AUTOMOBILE AND GAS ENGINE REPAIRS
Skills

1. Tearing down a farm engine and putting it back together again.
2. Cleaning carbon from an engine.
3. Adjusting bearings.
4. Rewiring a gas engine.
5. Grinding valves.
6. Clean and adjust the carburetor.
7. Taking out and replacing piston rings.
8. Testing the ignition of an engine.
9. Clean test and adjust spark plugs.
10. Testing cooling systems.
11. Timing valves and magnets.
12. Set the braker paints.
13. Reline and adjust brakes.
14. Test front wheels for proper alignment.
15. How to care for and charge a battery.
16. Care and repair of tires.

AUTOMOBILE AND GAS ENGINE REPAIRS**General References for Automobile and Gas Engine Repairs.**

1. Ramsower Equipment for the Farm and Farmstead - Ramsower.
 Ginn & Co.
2. Smith Agricultural Mechanics - R. H. Smith.
 Lippincott Co.
3. U. S. Army Manual on Repairing Motor Truck.

Special References for Automobile and Gas Engine.

U. S. Federal Board for Voc. Education - Wright Automobile Repair.
Nos. 35, 61, 69 and 60.

Charts on - Location of Gasoline Engine Troubles Made Easy.
The Norman W. Henley Publishing Co., 2 West 45th St., New York.

AUTOMOBILE AND GAS ENGINE REPAIRS.

1. Tearing down a farm engine and putting it back again.
 - A.
 - B.
 - C. Overhauling - McCormick Deering Tractor, I. H. C.
 - D. International Combustion Eng. I. H. C., Chicago, Ill.

2. Cleaning carbon from an engine.
 - A.
 - B.
 - C. Ford Manual - Ford Motor Co., Detroit, Mich.
 - D.

3. Adjusting bearings.
 - A.
 - B.
 - C.
 - D.

4. Rewiring a gas engine.
 - A.
 - B.
 - C.
 - D.

5. Grinding valves.
 - A.
 - B. Smith, p. 338-339.
 - C.
 - D.

AUTOMOBILE AND GAS ENGINE REPAIRS.

6. Clean and adjust the carburetor.
 - A.
 - B.
 - C. Iowa Ext. B. 8.
 - D.

7. Taking out and replacing piston rings.
 - A.
 - B. Smith, p. 340-342.
 - C.
 - D.

8. Testing the ignition of an engine.
 - A.
 - B. Smith, p. 320-325; Ramsower, p. 442-460.
 - C. Iowa Ext. Cir. 67; Cornell Ext. B. 133.
 - D.

9. Cleaning, testing and adjusting spark plugs.
 - A.
 - B. Smith, p. 336-337.
 - C.
 - D.

10. Test cooling systems.
 - A.
 - B. Ramsower, p. 464-468.
 - C.
 - D.

AUTOMOBILE AND GAS ENGINE REPAIRS

11. Timing valves and magnets.
 - A. F. B. 1013.
 - B. Handbook on care and operations of gas engine T47.2; G21.
 - C. Cornell Ext. B. 85.
 - D.

12. Set the braker points.
 - A.
 - B. Internal combustion engines - I. H. C.
 - C. Iowa Ext. Cir. 67.
 - D.

13. Reline and adjust brakes.
 - A.
 - B.
 - C.
 - D.

14. Testing front wheels for proper alignment.
 - A.
 - B.
 - C.
 - D.

15. How to care for and charge a battery.
 - A.
 - B.
 - C.
 - D.

AUTOMOBILE AND GAS ENGINE REPAIRS

16. Care and repair of tires.

A. F. B. 1013.

B.

C.

D.

PAINTING

1. Preparing surfaces for painting.
2. Mixing paint and thinning.
3. Applying paint.
4. Applying varnishes.
5. Care of paint brushes.
6. Estimating the quantity of paint needed.

PAINTING**General Reference for Painting**

1. Robb & B. **Farm Engineering - Robb & Behrends.**
 John Wiley & Sons.

Special Reference on Painting

1. **A Book of Painting and Varnishing Specifications.**
 The Sherwin-Williams Co., Cleveland, Ohio.

PAINTING

1. Preparing surface for painting.

A. F. B. 1452, p. 21-23.

B. Robb & B., p. 199-201; C. & L. 97-105.

C.

D. Handbook on Painting - National Lead Co. John T. Lewis & Bros. Co., 437 Chestnut St., Phila. Pa.

2. Mixing and thinning paint.

A. F. B., 1452, p. 2-20.

B.

C. Conn. Ext. B. 55, Helpful hints, p. 2-6.

D.

3. Applying paint.

A. F. B. 1452, p. 26-32.

B. Robb & B. 196-197, 202.

C. Modern Automobile Finishing Methods.

D. The Sherwin-Williams Co., Cleveland, Ohio.

4. Applying varnish.

A. F. B. 1452, p. 12-20.

B. Robb & B., p. 207.

C. Conn Ext. B. 55, p. 9-11.

D.

5. Care of paint brushes.

A.

B. Robb & B., p. 203.

PAINTING

C.

D.

6. Estimate the quantity of paint needed.

A. F. B. 1452, p. 23-24.

B.

C. Conn Ext. B. 55, p. 7.

D.

MISCELLANEOUS

1. Celery growing.

A. F. B. 1269.

B. Cal. Exp. B. 208; Utah Exp. Cir. 47, Celery Culture.

C. F. B. 282; N. J. Exp. Cir. 112.

D.

2. Beets.

A.

B. Watts, p. 245-252.

C.

D.

3. Cauliflower.

A.

B. Watts, p. 295-301.

C.

D.

4. Peas.

A.

B. Watts, p. 408-414.

C.

D.

5. Sweet Corn

A. Separate 931, p. 411-414.

B. Watts, p. 430-434.

C.

D.

The Use of Farm Magazines.

Each school should be supplied with a reasonable number of farm papers and magazines. These should be at the disposal of the student during study periods. Individual reading should be encouraged on the part of every student as much as possible. Any article of particular interest to the group or to any one student should be brought to their attention. Illustration:

If the instructor finds a good article on sheep and has three boys with sheep projects, he may clip the article and have each boy read and pass on, then when the third boy has finished reading the article he returns it to the instructor to be filed. He may try to borrow other copies of the same paper or type several copies and give each boy one.

Good articles, designs of appliances and pictures occasionally appear of unusual merit. These should be clipped and posted on cardboard that fits the regular folder, then they are placed in the folders with the teaching material, which, according to the standard Virginia system for filing, goes into the third drawer.

Agricultural Journals for Virginia.

Valley

Country Gentleman - Curtis Publishing Company, Philadelphia.
 Breeder's Gazette - Sanders Publishing Company, Chicago.
 Hoards Dairyman - Sanders Publishing Company, Chicago.
 Southern Planter - Richmond.
 American Fruit Grower - A. F. G. Company, State-Lake Bldg., Chicago.
 Farm Mechanics - F. M. Company, 1827 Prairie Ave., Chicago.
 Reliable Poultry Journal - R. P. J. Company, Quincy, Illinois.

Southwest Virginia

Country Gentleman
 Breeder's Gazette
 Southern Planter
 Farm Mechanics
 Reliable Poultry Journal
 The Nat. Stockman and Farmer (Pittsburg, Pa.)
 Progressive Farmer.

South-Central

Country Gentleman
 Southern Planter
 Progressive Farmer
 Reliable Poultry Journal
 Farm Mechanics
 Breeder's Gazette

North-Central

Country Gentleman
 Hoards Dairyman
 Southern Planter
 Breeder's Gazette
 Farm Mechanics
 American Fruit Grower
 Reliable Poultry Journal
 Progressive Farmer

Tidewater

Country Gentleman
 Southern Planter
 Progressive Farmer
 Swine Journal
 Farm Mechanics
 "Gardening" - Chicago.

PERIODICALS

There are many good periodicals which can be secured free of charge, which high school departments should be receiving and even the homes of the agricultural students. Some are departments of the State and Federal Government which send out statistics, literature and regular announcements of publication. Others are commercial organizations maintaining bureaus which disseminate agricultural information. There is teaching value in much of the material which may be received free from these sources, and should be made use of.

"The Extension Division News", Extension Division, Blacksburg, Virginia. This carries information which is not only timely and written by the best agricultural authorities in Virginia, but also exceedingly readable.

"The Monthly Bulletin", Department of Agriculture and Immigration, Richmond, Virginia. Good listings are given of seeds, livestock, and farm equipment for sale by farmers.

"Crops and Markets", U. S. Department of Agriculture. Address Superintendent of Documents, Washington, D. C. Subscription price of \$1.00 should be refunded by money order. Best quotations on markets and information on market conditions.

"Better Crops", The Pocket Book of Agriculture, 81 Fulton Street, New York.

"Agricultural Lime News Bulletin" and "Agricultural Swine News", National Lime Association, 918 G. Street, Washington, D. C.

"Monthly Crop Report", Division of Agricultural Statistics, State Department of Agriculture, Richmond, Virginia.

Armour Livestock Bureau, Chicago, Ill. send out a monthly letter to Animal Husbandrymen and other useful literature.

Universal Portland Cement Co., 72 W. Adams St., Chicago, Ill.

"Farm Cement News".

James Manufacturing Co., Fort Atkinson, Wis. Publish a magazine several times a year.

Mid-West Soil Improvement Committee, 916 Postal Telegraph Bldg.,
Chicago, Ill.

National City Bank, New York City. Periodical Bulletin on
"Economic Conditions".

Swift and Co., Chicago, Ill. send out market news letter, booklets,
yearbook, etc.

Perth Amboy Chemical Co., 100 Williams St., N. Y. Information
on Sprays and Fertilizers.

Government Printing Office, Washington, D. C. "Experiment Station
Record".

A. J. Surrat, Agricultural Statistician, Springfield, Ill.
Current crop and livestock reports for Illinois and other agricultural
information.

U. S. Department of Agriculture, Bureau of Agricultural Economics.
Division of Crops and Livestock Estimates, Washington, D. C.

University of Illinois, Extension Dept., College of Agriculture,
Urbana, Ill. "The Extension Messenger".

Agricultural Experiment Station, Urbana, Ill. Agricultural
bulletins and circs. Other state experiment stations. Single copies of
bulletins and circulars may be obtained from most states.

U. S. Dept. of Agriculture, Office of Publications, Washington,
D. C. Farmers Bulletins.

U. S. Dept. of Agriculture. States Relation Service, Agricultural
Instruction Division, Washington, D. C.

Department of Interior. Bureau of Education, Washington,

D. C.

Federal Board of Vocational Education. Publications Section.

200 New Jersey Avenue, Northwest, Washington, D. C.

Straus Brothers Company, Fort Wayne, Indiana. "Farm Topics"

a monthly publication.

Carnation Milk Farm, Oconomowoc, Wisconsin. "The Carnation

Milk Farm News" published monthly.

Vocational Education News Notes, University of California,

Department of Education, Berkley, California.

SOURCES OF ILLUSTRATIVE AND OTHER MATERIAL FORCLASS INSTRUCTION

A Handbook on Cement may be secured from the Alpha Portland Cement Co., Chicago, Ill.

"The Handy Book on Painting". National Lead Co., 900 West 18th Street, Chicago, Ill.

Information on the Standard Bred Cattle Club of America can be secured from Harry Bailey, President, Richland Center, Wisconsin.

"Tuberculosis Must Go", a booklet, may be secured from the International Harvester Co., 606 South Michigan Ave., Chicago, Ill.

Other material that can be obtained from the same firm:

"Illustrations of I. H. C. Farm Operating Equipment".

"The Consolidated Rural School".

"Progress in the Business of Feed Production".

"What are the Facts?".

"Internal Combustion Engines".

"Saving the World from Starvation".

Circulars on Marketing Eggs. The Metal Egg Crate Co.,
Fredericksburg, Virginia.

"Dairymen's National Bank Book". Purina Mills, 827 South Eighth Street, St. Louis, Missouri.

"Concrete Improvements that you Can Install Yourself". Free bulletin of the Marquette Cement Mfg. Co., Marquette Building, Chicago.

Rope card showing sizes, feet per pound, breaking strength, and other useful points about rope, from J. Rauschenberger Co., 85 West Water St., Milwaukee, Wisconsin.

"Short Cuts to Power Transmission", a useful booklet, may be secured from The Flexible Steel Lacing Co., 4607-51 Lexington Street, Chicago, Ill.

Specimens of potash from the Soil and Crop Service of the Potash Importing Corporation of America, 81 Fulton Street, New York City.

"Corn Crib and Granary Blue-Pring Working Plans", John Deere Company, Moline, Ill.

Glusher's Worsted Yarns (Process of manufacturing worsted yarn), S. B. and B. W. Fleisher, Inc. Mfts., Philadelphia.

Write to Ayrshire Breeders Association, Brandon, Vermont, for an Ayrshire Oracle, a clever device furnishing information on the breed.

Henry Disston and Sons, Inc., Philadelphia, will provide you with a copy of "The Pruning Book" and a Saw Chart.

A set of ten pictures of improved types of live stock can be secured from the Bureau of Animal Industry, U. S. D. A., Washington, D. C.; also charts "Which Way is Your Livestock Going?" and "Purebred Sires and Herd Improvements".

"Lectures on Ford Service", Ford Motor Company, Detroit, Mich.

Set of six charts on gas engines and tractors, structure, repair and operation, from the J. I. Case Threshing Machine Co.

The American Steel and Wire Co., 208 South La Salle St., Chicago, has the following bulletins: "The World View of May", "Farm Account Book", "How to Build a Fence", "Black Stem Rust", "Manual of Carpentry"; also the following posters: Potato Scab, Potato Types, Spray Potatoes, Copper Plated Potatoes, Chart of Wire Nails.

"The Dairy Herd" and "The Poultry Book for 1925" - The Quaker Oats Co., Chicago, Ill.

Have the National City Bank of New York put your name on their mailing list to receive their periodical bulletin on "Economic Conditions".

"Marketing Livestock and Meats" and "Handbook of Agriculture" are available from Armour's Bureau of Agricultural Research and Economics, Union Stock Yards, Chicago, also "Progressive Poultry Raising", "Progressive Hog Raising" and "Progressive Beef Cattle Raising".

Poultry Calendar - Ohio State University, Poultry Department, Columbus, Ohio.

The Extension Service of the Holstein Friesian Association of America, 230 E. Ohio St., Chicago, Ill., has the following series of manuals:

The Calf Club Manual	Financing Dairy Cattle
The Judging Manual	Cow Testing Manual
Better Dairy Sire Manual	

The American Guernsey Cattle Club, Peterboro, N. H., has a set of charts on Guernsey Cattle and Guernsey Milk-

Full-O-Peep (Correspondance Course Free) Quaker Oats Co., Chicago, Ill.

The Ayrshire Breeders Association, Brandon, Vermont, has a chart on the Ayrshire Cow.

"Poultry Profits" (booklet) and set of posters on poultry may be secure from Albert Dickinson Co., Chicago.

The Diamond Crystal Salt Co., St. Clair, Michigan, has the following booklets; "How to Butcher Hogs and Cure Pork", "101 Uses of Salt", "The Diamond Crystal Salt Co."

Write U.S.D.A., Department of Agricultural Economics, for the following bulletins: "Development and Present Status of Farmer's Cooperative Business Organizations" and "Agricultural Cooperation".

Pratt Food Co., Philadelphia, "The Poultryman's Complete Handbook" and "Monthly Poultry Calendar".

"Geography of the World's Agriculture", U.S.D.A., Department of Farm Management.

Illustrated Catalog for Landscape Gardening. Stark Bros., Louisiana, Mo.

Johnson's Poultry Chart. The E. M. Johnson Incubator Co., Clay Center, Neb.

Extension Poster No. 26 "Pure Bred Sires Increase Production". Iowa State College of Agriculture, Ames, Iowa.

Spray Chart. Corona Chemical Co., Milwaukee, Wis.

Lumber Scale and Scale for Estimating Quantity of Materials Required to Make One Yard of Concrete, Lehigh Portland Cement Co., Allentown, Pa.

DIVISION I - CHARTS

American Aberdeen-Angus Breeders' Association, 817 Exchange Ave., Chicago, Ill. Eight illustrations of individuals and lots.

Armour's Bureau of Agricultural Research and Economics, Union Stock Yards, Chicago, Ill. Breed charts on sheep, swine, beef cattle, poultry.

E. C. Atkins & Co., Indianapolis, Ind. Chart showing how to set and file a saw.

Blatchford Calf Meal Company, Waukegan, Ill. Instruction chart for feeding calves. How to feed baby chicks. How to produce fall and winter eggs.

Carnation Stock Farms, Oconomowoc, Wis. Pictorial pedigree.

The Chester White Swine Record Association, Rochester, Ind. Illustrations of outstanding individuals, 5 charts.

Corona Chemical Division of the Pittsburg Plate Glass Co., Milwaukee, Wis. Chart consisting of 16 colored plates illustrating insects pests and injuries caused by them.

De Laval Separator Co., 165 Broadway, New York City. General chart on dairying.

Albert Dickinson Co., Chicago, Ill. Digestion of yolk in chick's body. The formation of the egg and the digestive system.

National Duroc - Jersey Record Association, Peoria, Ill. Approved types of males and females.

Iowa State College of Agriculture and Mechanic Arts, Ames,
Iowa. Grading up a scrub herd of dairy cattle.

International Stock Food Co., Minneapolis, Minn. Charts
of perfect and unsound horses.

American Jersey Cattle Club, 324 West 25rd St., New York City.
How to select a profitable dairy cow, Famous Jerseys. Colored charts
of male and female Jerseys.

National Lime Association, 918 G. St. N. W., Washington, D. C.
Five charts on cost, value, need, forms of lime.

Agricultural College, Extension Service of Ohio State University,
Columbus, Ohio. Poultry calendar.

Ohio Agricultural Experiment Station, Wooster, Ohio. Learn
to know potato diseases.

Percheron Society of American, Union Stock Yards, Chicago,
Ill. Set of 15 pictures, price 20¢.

Pillsbury Flour Mills, Minneapolis, Minn. Educational chart
and booklet. Make application.

National Poland China Record Association, Winchester, Ind.
Charts of outstanding individuals and lots.

Remington Arms Co., Inc., 29 Warren St., New York City.
Chart showing game birds and animals.

American Shropshire Registry Association, LaFayette, Ind.
Shropshire ram, wethers, ewes (3 charts). Shropshire sheep. Type
and general appearance.

Simonds Manufacturing Co., Fitchburg, Mass. Blue print charts on knives, files, hacksaws, saws.

Soil Improvement Committee of the National Fertilizer Association, 11 So. La Salle St., Chicago, Ill., Baltimore, Md., Atlanta, Ga. Twelve charts concerning use of fertilizers.

Stanley Rule and Level Plant, New Britain, Conn. Fourteen charts on parts of plane, screw driver, hammer, chisel, ratchet bit brace, dowel and red turning machine, and on wood joints, rules, cuts, use of dowelling jig, use of try square.

State Entomologist, University Farm, St. Paul, Minn. Chart on injurious insects and useful birds.

Swift & Co., Chicago, Ill. Cuts of beef, pork, lamb, shopping for meat (3). Diagrams showing weights and proportions of cuts pork, beef, lamb.

Tobacco By-Products and Chemical Corporation, Ninth and York Sts., Louisville, Ky. Spraying chart with color illustrations of insects and diseases.

Bureau of Animal Industry, U. S. Department of Agriculture. 10 charts Livestock-Improvement Series of Better Sires-Better Stock Campaign. Miscellaneous charts on various phases of livestock improvement.

Office of Agricultural Instruction, U. S. Department of Agriculture, Washington, D. C. Set of breed charts on horses, sheep, swine, cattle, poultry.

Bureau of Entomology, U. S. Department of Agriculture.

Charts on alfalfa seed chalcis fly, wheat, jointworm, Hessian fly, potato spraying, aphids, potato beetles, garden cutworms, European corn borer, the brown-tail moth, the Gypsy moth.

Wilson & Co., 4100 So. Ashland Ave., Chicago, Ill. Matton and lamb cuts, pork cuts, beef cuts. Meat and by-product chart of cattle, swine and sheep.

Albert Dickinson Co., Chicago, Ill. Mount containing samples of farm seeds.

The Atlas Portland Cement Co., New York City. Set of specimens showing steps in making cement.

Corn Products Refinishing Co., Edgewater, N. J. Sets of specimens of products made from corn.

International Stock Food Co., Minneapolis, Minn. Set of feed samples.

Ladish Milling Co., Milwaukee, Wis. Set of feed samples.

Morris and Co., Chicago, Ill. Set of fertilizer samples.

Purina Mills, 855 S. Eighth St., St. Louis, Mo. Feed samples.

Quaker Oats Co., Cedar Rapids, Iowa. Feed samples.

Bureau of Soils, U. S. Department of Agriculture. Important soils of the United States. Samples from all important soil provinces in vials. Make application for these sets to Office of Agricultural Instruction, U. S. D. A., Washington, D. C.

Swift and Co., Chicago, Ill. Set of fertilizer samples.

American Association of Importers and Breeders of Belgian
Draft Horses, Wabash, Ind.

American Berkshire Association, 510 $\frac{1}{2}$ East Monroe St.,
Springfield, Ill.

Chester White Swine Record Association, Rochester, Ind.

American Cheviot Sheep Society, Hartwick, N. Y.

American Clydesdale Assn., 842 Exchange Ave., Union Stock
Yards, Chicago, Ill.

The Hampshire Swine Record Association, 409 Wisconsin Ave.,
Peoria, Ill.

The American Hampshire Sheep Association, 72 Woodland Avenue,
Detroit, Mich.

The American Hereford Cattle Breeders' Assn., 300 Eleventh St.,
Kansas City, Missouri.

The American Poland China Record Association, Union Stock
Yards, Chicago, Ill.

Central Scientific Co., E. Ohio St., Chicago, Ill.

Rand McNally and Co., 536 South Clark St., Chicago, Ill. Maps.

Stanley Rule and Level Plant, New Britain, Conn. Tools.

Ward's Natural Science Establishment, 84-102 College Avenue,
Rochester, N. Y. Entomological, biological, zoological supplies.

FLOUR AND FLOUR BY-PRODUCTS

1. Exhibit of Grades of - Russell Milling Co. - Minneapolis, Minn.
Flour and By-Products.
2. Cereals and Flour Exhibit - Pillsbury Flour Co. " "
"A Large Kernel of Wheat".

PLANTS

1. Grains & Grasses - Commissioner of Immigration - Winnepeg, Canada.
2. Display of Corn Products - Darling & Co., Chicago, Ill.
3. Seed Catalog - Henry A. Dreer - Philadelphia, Pa.
4. Manufacture of Corn Products - American Mfg. Ass'n-First Nat'l.
Bank Bldg., Chicago, Ill.
5. Inside Facts of Profit - Wm. P. Stark Nurseries -Stark City, Mo.
Able Fruit Growing.

ANIMAL HUSBANDRY

1. Annual Calendar (Fine) - Clay Robinson Co. - Chicago, Ill.
2. Horse Disease Chart - International Stock - Minneapolis, Minn.
& Horse Anatomy Chart. Food Co.
3. Chart Showing 26 Breeds - Wm. Cooper & Nephews - 152-154 Huron St.,
of English Sheep. Chicago.
4. Chart Containing some - R. O. Evans & Co. - Chicago, Ill.
animal pictures.
5. Chart on Breeds of Sheep - Wm. Cooper & Nephews - 152-154 Huron St.,
Chicago.
6. Veterinary Charts - Journal of Veterinary - Chicago.
7. Circular #131 - Virginia Agricultural - Blacksburg, Va.
"Better Sires for & Mechanical College
Virginia" (This circular furnishes good suggestions for making charts.
8. Diseases of the Horse - U. S. Dept. of Agriculture. (Can be
Diseases of the Cow secured by writing to your senator at
Washington, D. C.

ANIMAL HUSBANDRY (Continued)

9. Pictorial History of A Steer - Morris & Co. - Chicago, Ill.

INSECTS AND DISEASES

1. Potato Disease Chart - Dept. of Botany, Ohio Agr. Experiment Station, Wooster, Ohio.
2. Pathological Exhibits - Dept. of Agr. Extension - Fargo, N. D. (Write for prices).
3. Insects & Spraying Chart - Kentucky Tobacco Products Co. - (Very good).
Louisville, Ky.
4. Garden Pests and Their Control - The Corona Chemical Co. - Milwaukee, Wis.
(This contains Company Colored plates of insects).
5. Samples of Spray Projects - Sherwin-Williams Co.-San Francisco. and Spraying Guide Chart. (A large chart for wall).
6. Insect Charts - Imperial Chemicals Co. - Grand Rapids, Mich.
7. Charts on Potato - Minister of Agr. Ontario, Canada. Diseases (Good).
8. Spray Calendar - E. G. Brown - 851 Maple St., New York City.

POULTRY

1. Poultry Feeding directions - Northwestern Milling Co. - 380 Brannan St., San Francisco.
2. Fact Book - "Good Layers - Globe Mills - San Francisco. and how to Judge them" Feed Samples.
3. "More Money in Commercial - Animal Food Co. - Oakland, Cal. Egg Farming" (Advertises tonics).
4. Pictures of Poultry - Reliable Poultry Journal - Quincy, Ill. 10¢ each.

GENERAL

1. "The Market Reporter" - Bureau of Markets - Washington, D. C. (A paper worth being U.S.D.A. placed on the mailing list).

GENERAL (Continued)

2. Strathford Salt Display - German Kali Works - Chicago, Ill.
3. Poster Bulletins :- Agri. Exp. Station - University of Wis.,
 No. 1 Potato Diseases Madison, Wis.
 " 2 Standard Potatoes
 " 3 Prevention & Control of Hog Cholera.
 " 4 How do you Market your Crops?
 " 5 Help Fight These Weeds.
 " 6 Improve Sandy Soils.
 " 7 Test your seed Corn.
 " 8 Save Farm Fertility.
 " 9 Keep cream & milk clean and cold.
4. Posters: - U. S. Dept. of Agr. - Washington, D. C.
 Spray Potato Fields. Best Time to Plant Winter Wheat.
5. Charts: - Fruits & Vegetable Pack - U.S. Dept. of Agr. States
 (Write for list). Relation Service, Washington, D. C.

FARM MECHANICS

1. Book of Modern Barns - J. E. Porter Co. - Ottawa, Ill.
 Containing blueprints and Book of Practical Barn Equipment.
2. 1920 Bee-Keeping - Apiary Department - The Diamond Match Co.,
 Supplies. (Well Illustrated). Chicago, Ill.
3. The Tractor Field Book - Farm Implement News - Masonic Temple,
 (160 p. booklet on various tractors). Chicago, Ill.
4. How to File a Saw - Simonds Mfg. Co., - San Francisco.
 (Simonds Guide for Carpenters)
5. Johnson's Wood Dye - S. C. Johnson & Son - Racine, Wis.
 Samples of Coloring for Wood.

ADDRESSES OF AGRICULTURAL COLLEGES AND EXPERIMENT STATIONS

Southern Region

- Alabama - Alabama Polytechnic Institute and Agricultural Experiment Station, Auburn.
- Arkansas - College of Agricultural and Agricultural Experiment Station, Fayetteville.
- Florida - College of Agriculture and the Agricultural Experiment Station, Gainesville.
- Georgia - Georgia State College of Agriculture, Athens.
Georgia Experiment Station, Experiment.
- Georgia - Coastal Plains Experimental Station, Tifton.
- Louisiana - Louisiana State University and Agricultural and Mechanical College and the State Experiment Station, University Station, Baton Rouge.
- Mississippi - Mississippi Agricultural and Mechanical College and Agricultural Experiment Station, Agricultural College.
- North Carolina - North Carolina State College of Agriculture and Engineering, West Raleigh, and Agricultural Experiment Station, Raleigh and West Raleigh.
- Oklahoma - Oklahoma Agricultural and Mechanical College, and Agricultural Experiment Station, Stillwater.

Southern Region (Continued)

**South Carolina - Clemson Agricultural College, and Agricultural
Experiment Station, Clemson College.**

**Tennessee - College of Agriculture and Agricultural Experiment Station,
Knoxville.**

**Texas - Agricultural and Mechanical College, and Agricultural
Experiment Station, College Station.**

**Virginia - Virginia Agricultural and Mechanical College and Polytechnic
Institute, and Agricultural Experiment Station, Blacksburg.**

North Atlantic Region

**Connecticut - Connecticut Agricultural College and Storrs Agricultural
Experiment Station, Storrs.**

Delaware - Delaware College and Agricultural Experiment Station, Newark.

**Maine - College of Agriculture and Agricultural Experiment Station
of the University of Maine, Orono.**

**Maryland - Maryland State College of Agriculture and the Agricultural
Experiment Station, College Park.**

**Massachusetts - Massachusetts Agricultural College and Agricultural
Experiment Station, Amherst.**

**New Hampshire - New Hampshire College of Agriculture and Mechanic Arts
and Agricultural Experiment Station, Durham.**

**New Jersey - State College of Agriculture and Mechanic Arts and
Agricultural Experiment Station, New Brunswick.**

North Atlantic Region (Cont'd)

New York - New York State College of Agriculture and Agricultural
Experiment Station of Cornell University, Ithaca, and
New York State Agricultural Experiment Station, Geneva.

Ohio - Ohio State University, Columbus. Ohio Agricultural Experiment
Station, Wooster.

Rhode Island - Rhode Island State College and Agricultural Experiment
Station, Kingston.

Pennsylvania - Pennsylvania State College and Agricultural Experiment
Station, State College.

Vermont - College of Agriculture and Agricultural Experiment Station,
Burlington.

West Virginia - College of Agriculture and Agricultural Experiment
Station, Morgantown.

Central Region

Illinois - College of Agriculture and Agricultural Experiment Station,
Urbana.

Indiana - Purdue University, School of Agriculture and Agricultural
Experiment Station, LaFayette.

Iowa - Iowa State College of Agriculture and Mechanic Arts and
Agricultural Experiment Station, Ames.

Kansas - Kansas State Agricultural College and Agricultural Experiment
Station, Manhattan.

Central Region (Cont'd.)

Kentucky - College of Agriculture and Agricultural Experiment Station, Lexington.

Michigan - The Michigan Agricultural College and Agricultural Experiment Station, East Lansing.

Minnesota - Department of Agriculture (School of Agricultural Experiment Station) of the University of Minnesota, University Farm, St. Paul.

Missouri - College of Agriculture and Agricultural Experiment Station of the University of Missouri, Columbia.

Nebraska - College of Agriculture and Agricultural Experiment Station of the University of Nebraska, Lincoln.

North Dakota - North Dakota Agricultural College and Agricultural Experiment Station, Agricultural College.

South Dakota - South Dakota State College of Agriculture and Mechanic Arts and the Agricultural Experiment Station, Brookings.

Wisconsin - College of Agriculture and Agriculture Experiment Station, Madison.

Pacific Region

Arizona - College of Agriculture and Agricultural Experiment Station, Tucson.

California - College of Agriculture and Agricultural Experiment Station, Berkeley.

Pacific Region (Cont'd.)

- Colorado - The State Agricultural College of Colorado and Agricultural Experiment Station, Fort Collins.**
- Idaho - College of Agriculture and Agricultural Experiment Station, Moscow.**
- Montana - Montana State College of Agriculture and Mechanic Arts and the Agricultural Experiment Station, Bozeman.**
- Nevada - College of Agriculture and Agricultural Experiment Station, Reno.**
- New Mexico - New Mexico College of Agriculture and Mechanic Arts and Agricultural Experiment Station, New Mexico.**
- Oregon - Oregon Agricultural College and Agricultural Experiment Station, Corvallis.**
- Utah - Agricultural College of Utah and Agricultural Experiment Station, Logan.**
- Washington - State College of Washington and Agricultural Experiment Station, Pullman.**
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