ANNUAL REPORT

1954

Project No. 7-a

Extension Division

by

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Horticulture Department
Virginia Polytechnic Institute

TABLE OF CONTENTS

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS

VIRGINIA POLYTECHNIC INSTITUTE AND THE UNITED STATES DEPARTMENT OF AGRICULTURE COOPERATING

STATE OF VIRGINIA

P. I. AGRICULTURAL
TENSION SERVICE

December 20, 1954

Vegetable Extension Project 7-a received the equivalent of the full time of three men a t 63% of the time of one man during 1954. The period covered in this report was from December 1, 1953 through November 30, 1954.

The personnel and the distribution of time was as follows:

G. R. Williams,	Associate Horticulturist 88% of period at full time
L. C. Beamer,	Associate Horticulturist Full time
F. H. Scott,	Assistant Horticulturist Full time
A. V. Watts,	Associate Horticulturist 75% time Vegetable Extension 25% time Virginia Truck Experiment Station

Mr. Williams resigned October 16, 1954 having worked, during the period, full time from December 1, 1953 to the date of his resignation which was about 88% of the period.

Mr. Watts is at the Virginia Truck Experiment Station, Norfolk, Virginia. His Extension work consists mainly of assisting commercial vegetable growers in the counties near Norfolk and the two Eastern Shore counties.

GENERAL DISCUSSION

Vegetable Extension work during 1954 was devoted to five of the more important vegetable activities of the state which are home gardens, potatoes, sweet potatoes, tomatoes, and miscellaneous truck crops. A program of service has been accomplished in each of these interests.

The home garden program has received the most effort on the part of the specialists than any of the other programs because of the wide interest in vegetable gardening and because of the opportunity to improve the diet of people in Virginia.

Irish potato yields were reduced by dry weather and prices during the main part of the harvest season were unsatisfactory. Very early potatoes and those in July received fairly satisfactory prices. Low prices for the main crop were partly because of the rough variety used. Virginia potato growers can still improve their cultural and marketing practices while hoping plant breeders will soon develop a smoother early potato variety. Extension specialists will continue in their efforts to interest and encourage the growers in better production, harverting, and selling methods.

Sweet potato acreage has increased somewhat since a low in 1952. It appears that the acreage may stabilize at about 20,000. Yields were a little lower in 1954 because of the drought but above the 1943-52 average. The crop continues to produce satisfactory returns. Higher prices are paid for stored potatoes sold well

after harvest time, so additional storage facilities in 1954, encouraged by Extension specialists, benefited growers. Intelligent hill selection of seed sweet potatoes results in higher yields of excellent quality sweets. Efforts were made in 1954 and will be continued in 1955 to cause adoption of more hill selection and the increase of storing sweet potatoes.

Tomato acreage for harvest decreased somewhat in 1954 which was probably a result of the drought. The yield per acre of tomatoes in Virginia is increasing, but it is still far from satisfactory. Extension specialists, although pleased with the increased yields in recent years of canning tomatoes of 11% and fresh tomatoes of 15%, will continue their efforts to improve cultural practices to obtain higher yields and better quality. Prices for canning tomatoes in 1954 were about the same as 1953 but were somewhat lower in the fresh market. Growers of tomatoes for processing should grade to avoid waste of time and effort by them and the canner. Specialists shall continue in their efforts to cause pickers "to leave culls in the field."

Miscellaneous truck crops includes all truck crops grown in Virginia except potatoes, sweet potatoes, and tomatoes. Prices of these crops were generally somewhat lower except toward the beginning and end of the harvest period. The Extension program in these crops consists mainly in giving aid where and when needed. Included in the program was aid to several state and charitable institutions.

It is not easy to evaluate accurately the vegetable situation

each year without a complete annual census which is impractical to do. The few data we have can sometimes be misleading. As an example, this year the sales of commercial vegetable seeds increased and yet the number of acres harvested decreased. One of these items would have indicated more acres planted and the other would have indicated the opposite. Actually when the two data are put together the answer is - drought. Sometimes, however, we are able to spot the results of specialists' efforts rather definitely. As an example, one specialist made lime and fertilizer recommendations based on 1,326 soil tests in the 5 counties producing the most commercial vegetables in Virginia. The soil tests represented 6,630 acres. A total of 4,200 tons of ground limestone was recommended. Most vegetable growers follow the recommendations closely as some of the crops are exacting in lime requirements. Therefore, it seems reasonable to assume that as a result of specialists' recommendations, 4,000 tons of limestone were applied to vegetable crops in 5 counties in 1954. Even such tortuosity is better than no information. I envy the mathematician whose answers are always clear cut and well defined.

Methods and Agencies

The Extension organization within the counties was the main agency through which vegetable Extension information was carried to the farmers of the state. Several other agencies such as the County Boards of Agriculture, Chambers of Commerce, and other civic organizations were also helpful in carrying out the program.

Through cooperation with other Extension Departments, including those of Agricultural Economics, 4-H Club, Home Economics, Plant Pathology and Entomology, and Agronomy, and also the Virginia Seed Commission, a closely coordinated program has been carried out. Through these joint efforts, the problems of the commercial growers and home gardeners have been more effectively approached.

The objective of the program has been that of service to groups and leaders rather than to individuals. However, it has been found that effective work can be accomplished by aiding the individual in certain cases. Demonstrations and visual aids were used as much as possible. Television programs were used occasionally. Vegetable gardening lends itself very well to live television shows. Other methods used were state and Federal publications distribution, individual letters, press articles, radio talks, discussion meetings, and method demonstrations.

The specialists from time to time called upon the United States Department of Agriculture and various experiment stations for subject matter material. Cooperation of the Virginia Truck Experiment Station has been of particular value.

A list of agencies in addition to Extension departments, which cooperated in the vegetable Extension program included:

Chambers of Commerce
Department of Vocational Agriculture
Federation of Home Demonstration Clubs
Magazine and newspaper organizations

National Junior Vegetable Growers Association
Potato and Vegetable Growers Association of Virginia
Radio and television stations
Roanoke Vegetable Growers Association
State Department of Agriculture
State Department of Public Welfare
Soil Conservation Service
Various civic organizations
Virginia Agricultural Experiment Station
Virginia Seed Service Commission
Virginia Truck Experiment Station

PROJECT PROGRAMS

Home Garden Program

The home garden program continued to receive more emphasis than any other single program. We think efficiently operated home gardens will benefit more people throughout the state than any other single vegetable producing activity.

Despite the excellent accomplishments of the Extension Home Economics Service and other groups, many families are likely to eat food that is most convenient to obtain. A carefully planned vegetable garden makes food, that contributes much to a well-balanced diet, the most convenient of all to obtain. A well-planned garden vigorously supports the advice of nutritionists.

Also, the vegetable garden contributes a welcome though small addition to the farm income. According to carefully kept records by 4-H Club member Doris Webster of Franklin County, Virginia, the income from her garden, after all costs were paid, was $233. Agricultural economists estimate the number of gardens in Virginia to be 175,000 which should produce $175 value in vegetables each year. This would result in the estimated production value of

vegetable gardens in Virginia of more than $30,000,000 annually.

Also, there is sometimes a spiritual value in gardening which, though definite, is difficult to evaluate. The mother in a family which was rather distracted by farming difficulties in Campbell County, Virginia, said that her daughter's 4-H Club garden seemed to make things easier for them. Surely the additional labor in caring for a half-acre garden could not be considered as "making things easier." This observer thinks that in this family, life had become easier, not only because the general farming operation had reached a more profitable stage, but because the family had found a center of interest in the garden. In this case, as in many others, the garden had become a sort of outdoor hearthstone whereby the family had found peace and comfort. Though difficult to define or evaluate, the spiritual value of a garden can sometimes be its greatest benefit.

Many gardens in Virginia do not deliver all, or even any, of the benefits just discussed. The selection of vegetables may be such that little is contributed to a balanced diet. Lack of planning and indifferent operation may make the garden anything but profitable. Caring for the garden may be a disagreeable chore instead of a pleasant occupation. The problem of the Extension specialists is involved in the development of more interest in the home vegetable garden and in delivering information in response to that interest.

Extension specialists, in an effort to resolve this problem,

have participated in several activities, a few of which are discussed below.

Leader Training. Many Home Demonstration Clubs in Virginia have one member of each club designated as the "vegetable gardening leader." Vegetable specialists meet with these leaders and discuss gardening activities in 24 counties. The Home Demonstration leaders then relay such information and encouragement, as they may have received, to the other members of their clubs. Also, the leaders are given vegetable gardening manuals, as a ready reminder, to be used throughout the year. These manuals contain suggested topics to be discussed each month and bulletins, circulars, and mimeograph leaflets about vegetable gardening as reference material for these discussions. Undoubtedly, a large number of gardeners are reached this way.

Garden Meetings. Extension specialists participated in 112 vegetable gardening meetings with a total attendance of 4,642 during the year. Some of the meetings were county-wide while others were made up of community groups, various organizations, professional workers, and veteran groups. Visual aid and publications were used at many meetings to supplement the discussions.

Community Improvement. During the year there were several community improvement movements, which frequently included improvements of public meeting places and homes. Vegetable gardening was part of the home betterment activities. Extension specialists met with community improvement groups and offered suggestions for

"better gardens for better homes." One such group had a vegetable gardening contest which was encouraged and judged by the county agent and specialists.

4-H Club Vegetable Work. The 4-H club work is one of the more important phases of the vegetable program. There were 27 meetings for a total of 1,423 members at which vegetable specialists spoke. Many of the ~~5,000~~ 8,171 members of the 4-H Club enrolled in the vegetable project were reached by these meetings and by 32 demonstrations.

A Sears-Roebuck contest is one of the outstanding projects in the gardening program. The contest was held in areas near Sears-Roebuck stores which supported the program by giving prizes for the better gardens. The participants in the contests were helped by the Home Demonstration and County Agents and by letters from specialists. Twice during the season a specialist scored the gardens and then, in the fall, awards were ceremoniously presented. 4-H members from 15 counties participated in the contest. This contest offers the specialists and county Extension personnel opportunity to discuss gardening with the children and their families at the more intimate level of the home. Farmer Beckner, who is the father of Christine, a district prize-winner, was asked how he had learned so much about gardening. Mr. Beckner said, "I got a lot of what I know about gardening from Christine and she got what she knows from V.P.I." We think this contest demonstrates time and again that the place to impart knowledge and generate interest is in the presence of children, the fountainhead of future

better living. I think this contest should be continued as long as a sponsor can be found.

The National Junior Vegetable Growers Association's contest was continued in 1954. Extension participates in this program through the 4-H Club Department. The program consists mainly of various contests within the vegetable field and an annual convention. It is too early for announcements of regional and national winners, but of Virginia 4-H Club members, two have received state awards in the Production and Marketing Contest and one is a state winner in the Soil Fertility and Improvement Contest. A member won the state N.J.V.G.A. demonstration contest and he will represent Virginia in giving a demonstration at the convention in Cincinnati. He will be accompanied at the convention by the state Production and Marketing winner and by an Extension Home Agent and Assistant County Agent.

After the amount of awards had been published in Virginia by the N.J.V.G.A. through the 4-H Club Department, the N.J.V.G.A. reduced the amount of awards because, they said, sufficient funds were not available. The N.J.V.G.A. program will not be a part of an Extension project in Virginia in 1955.

Dissemination of gardening information was also done by 31 radio talks, 1 television program, and 36 newspaper articles. Eight thousand circular gardening letters were mailed each month. January through October and thousands of copies of the popular circular, "Vegetable Garden Suggestions for Virginia," were mailed upon

request. Recommendations were made on 1,350 soil tests.

Gardening probably increased in 1954. Although no census was taken, three of the larger seed dealers in Virginia reported increased sale of home garden vegetable seed. However, the emphasis in 1954 was on better gardens rather than more gardens.

The 1955 gardening project will be continued in a manner similar to that of 1954.

Irish Potato Program

The acreage in Irish potatoes has declined 44% during the past twelve years. This reduction probably has been caused by growers switching to other crops, such as corn and soybeans, in which larger net profits seem more likely. It appears, however, that the rate of decline is lessening and the number of acres, for the next few years, will stabilize at 25,000 to 30,000 acres.

The 1954 season started early with fairly satisfactory prices but quickly dropped and remained low until July when the price advanced to satisfactory levels for the remainder of the harvest period. The yields in Accomac County were materially reduced by early dry weather and only the improved prices saved the growers from heavy financial losses on the crop. Because of the dry weather, only those growers who planted early or who had irrigation, made satisfactory profits.

Twenty-two thousand acres in 1954 produced 3,722,000 bushels of potatoes which was only 169 bushels per acre as compared with 205 bushels in 1953 and 186 bushels average 1943 to 1952. The reduced yield was a result of the drought.

The Virginia growers need a better early variety than the Irish Cobbler. While the Irish Cobbler is early and is of excellent quality, it is too rough and has eyes too deep to compete satisfactorily on the terminal markets. The Pungo, recently developed by the U.S.D.A. and the Virginia Truck Experiment Station, is early and of excellent quality but, while smoother than the Irish Cobbler, it is not smooth enough.

Although a smoother early variety is perhaps the greatest need of Virginia potato growers, much work is still needed to improve the cultural and marketing practices.

A total of 34 days were spent in the field by Extension specialists on the potato program in an effort to improve the practices. Ten different counties were visited which covered all the high potato-producing areas. Specialists had 49 conferences with county agents and 18 meetings attended by 655 people. Eleven demonstrations were given and recommendations made on the results of 436 soil tests. Several newspaper articles were released and 3,500 circular letters were distributed.

Although the drought reduced the yield of potatoes this year, the long time yield per acre is definitely upward. Also, preparing potatoes for the market by washing, grading, and other practices has improved. It is impossible to evaluate exactly the efforts of specialists in terms of higher yields and better marketing practices. However, many successful potato growers have followed the recommendations of specialists and it therefore may be reasonably assumed that

specialists have had a part in the improved conditions.

Sweet Potato Program

The sweet potato acreage ranks with acreage of potatoes and tomatoes as the three crops with the highest number of commercial vegetable acres. During the past 3 years there seems to have been a reversal of the downward trend in acreage of sweet potatoes. The 1942-1951 average acreage was 23,000 and the 1952 acreage was 17,000, but in 1953 there were 19,000 acres and 1954 estimates indicate 20,000.

The average yield of sweet potatoes per acre 1943 to 1952 was 120 bushels. In 1953 the yield was 150 bushels and 1954 it is estimated the yield was 125 to 150 bushels. The yields are of U. S. No. 1 sweets, but an acre may produce another 30 bushels of canners and jumbos which usually sell for $1.00 a bushel.

The price per bushel in 1953 was $1.65 and estimates indicate $1.50 in 1954. The crop has continued to pay satisfactory returns for the most part, particularly to those farmers who grow storage type sweet potatoes, such as the Porto Rico, and store them for the market in the late winter and spring months. Each year the prices are low at harvest time and then begin to advance in December and continue upward until the following July, when the early harvest begins in Florida. During 1954 new construction and converted buildings provided additional storage space for 265,000 bushels of sweet potatoes. Usually sweets will net better than $1.00 per bushel more out of storage, after allowing for shrinkage, than prices

received at harvest. Therefore, it seems obvious that in 1954 alone, additional storage space increased the value of the crop by $265,000. A few growers in the Eastern Shore area have been successful in growing sweet potatoes for the early August market when prices are satisfactory. After mid-August the prices are lower because of the heavy harvest in the Carolinas and eastern Virginia. However, we think this early-August acreage will continue to be rather limited and the emphasis should be on storing much of the crop.

The canneries have been using large quantities of small sweets and they prefer the Maryland Golden type. One of the large quick freezing firms froze some sweet potatoes on a trial basis and was so pleased with the reception by the trade, that they expect to freeze a considerable quantity this season.

The sweet potato is a fine crop for Virginia, although there are problems in this crop as in all other crops. The two most important factors in the successful production of sweet potatoes in Virginia are storage to lengthen the marketing period and hill selection of seed stock to increase the yield of U. S. No. 1 sweets. Intelligent hill selection is a very important operation in reducing diseases and maintaining good quality.

Toward having more and better storage facilities and hill selection, among other cultural and marketing practices, Extension specialists, during 1954, spent 53 days in the field. Fifty-three conferences were held with county agents, 137 farm visits were made in 20 counties, and 18 meetings with a total attendance of 640 were conducted. Thirteen demonstrations were given including a hill

selection demonstration on plots in Princess Anne County. Recommendations were made on 333 soil tests. There were 2 radio and 1 television programs and 10 newspaper articles.

A 77 page bulletin, "Growing and Selling Sweet Potatoes in Virginia," was published during the year. This was a joint publication of the Virginia Extension Service, the Virginia Truck Experiment Station, and the Virginia Department of Agriculture. We expect this bulletin to be a helpful and quick reference for sweet potato growers.

The yield per acre of U. S. No. 1 sweet potatoes has increased over the past several years and, during 1954, there has been a decided increase in the amount of storage space. Extension specialists do not claim all the credit for these benefits, but we do think we have had a considerable part in creating the interest that resulted in these accomplishments.

We expect to continue a program in 1955 that will be similar to that of 1954 as results seem to indicate we are going in the right direction.

Tomato Program

The average acreage of tomatoes for the period 1943 to 1952 was 25,300 for processing and 3,600 fresh. During the past several years the total acreage has decreased to about 17,200 acres. During the period 1943 to 1952 fresh market tomato acreage was less than 13% of the total, while it was 37% in 1953 and 30% in 1954. In 1953 the market for fresh tomatoes was very good and had the prices been

as favorable in 1954 the trend toward a larger proportion of fresh market tomatoes would have continued. In 1954 there was a decrease of 2,700 acres for fresh market tomatoes and 1,400 acres of tomatoes for processing. The crop is set out and, in many instances, the price determines whether the crop is sold as pinks or green wraps or moves to the processor. Therefore, the proportionate acreage of fresh market tomatoes in 1954 could have equalled that of 1953 had the price relationship between fresh and processed fruit remained the same.

The price of fresh tomatoes is estimated to be $1.90 a bushel in 1954 which is $0.20 lower than 1953 but the same as the 1949 to 1951 average. The estimated price paid in 1954 for processing tomatoes is $26 a ton which is only $0.70 lower than 1953, but $3.70 lower than the 1942 to 1951 average.

The yield per acre of tomatoes for processing for the 10-year period, 1940 to 1949, was 3.8 tons and for the 5-year period, 1950 to 1954, was 4.2 tons. The yield per acre of tomatoes for the fresh market for the 10-year period, 1940 to 1949, was 153 bushels and for the 5-year period, 1950 to 1954, was 176 bushels. The trend seems to be toward higher yields. Our problem is to maintain or, if possible, accelerate this trend.

Another problem is in marketing processed tomatoes. Many canners say that when run-of-the-field tomatoes are brought to them, much time is consumed in disgarding unusable fruit. Our effort is toward teaching the pickers to leave culls in the field, as the grower

receives no money for them and the canner's time is wasted.

In an effort to increase the yield per acre of tomatoes and improve the marketing practices of growers, vegetable specialists spent 61 days in the field on the tomato program. One-hundred nine visits were made in 26 counties. Thirty-four meetings were conducted.

Demonstration plantings of 12 varieties of tomatoes in replicated plots in Norfolk County and in single rows in Henrico County were made. Quite a few growers observed these demonstrations which, we believe, will be of value to them.

It is not always easy to change customs of many years standing of adults. Therefore, in an effort to improve the production and marketing practices of the tomato crops, we are now including more young people. This year we have started a state-wide 4-H Club tomato project. The purpose of the project is to teach and to cause the adoption of recommended production and marketing practices. The awards in this project will be donated by the Tidewater Canners Association of Virginia. It is too early to evaluate this project but we believe it will contribute much to attaining our goal.

Miscellaneous Truck Crops Program

This project includes all truck crops in Virginia except potatoes, sweet potatoes, tomatoes, and strawberries. Some of the more important of these crops are snap beans, cucumbers, sweet corn, Lima beans, cabbage, green peppers, kale, spinach, green peas, broccoli, and watermelons. The acreage of truck crops included in this project is given in the following table.

	1943-52 Average			1953			1954 (Preliminary		
	Fresh	Process	Total	Fresh	Process	Total	Fresh	Process	Total
Beans, Snap	13,220	3,380	16,600	11,520	4,500	16,020	10,620	4,300	14,920
Cucumber	—	4,920	4,920	—	6,900	6,900	—	7,400	7,400
Corn, Sweet	5,325*	765	6,090	4,000	1,300	5,300	3,600	1,400	5,000
Beans, Lima	815	4,020	4,835	400	4,700	5,100	350	4,300	4,650
Cabbage	4,018	—	4,018	3,750	—	3,750	3,900	—	3,900
Peppers, Green	2,343**	—	2,343**	3,500	—	3,500	3,400	—	3,400
Kale	2,740	—	2,740	3,200	—	3,200	3,000	—	3,000
Spinach	2,810	955	3,765	1,600	1,100	2,700	1,500	1,200	2,700
Peas, Green	—	2,405	2,405	—	2,500	2,500	—	2,400	2,400
Watermelon	1,630**	—	1,630**	2,000	—	2,000	1,800	—	1,800
Onions	487	—	487	420	—	420	360	—	360
Beets	228	—	228	230	—	230	210	—	210
Totals	33,616	16,445	50,061	30,620	21,000	51,620	28,740	21,000	49,740
Broccoli	—	—	—	1,100***	1,100***	2,200***	900***	900***	1,800***
Totals	33,616	16,445	50,061	31,720	22,100	53,820	29,640	21,900	51,540
% of totals	67	33		59	41		58	42	

* Fresh sweet corn for processing average is for 1949-52.

** Green peppers and watermelon averages are for 1946-52.

*** Unpublished acreage of broccoli for only 1953 and 1954 and only total of processing and fresh were given. Processing and fresh were arbitrarily assigned ½ the total each.

The foregoing table indicates that the total acreage of truck crops included in this program remains rather steady. The acres given in the table are "acreage for harvest" so it is probable that the decline in 1954 estimates was the result of dry weather. Actually, there was probably an increase in the sale of seeds in Virginia. One relatively large seed dealer in Virginia in reporting on sales of 19 kinds of commercial vegetables showed an increase of from 5% to 20% on 11 kinds and a decrease of from 5% to 15% on 6 kinds while two kinds were unchanged.

Prices received for these crops were generally somewhat lower than in 1953. The price for cabbage was considerably lower while the price for sweet corn was satisfactory.

The need for assistance in growing these vegetable crops is so varied that the specialists usually have to respond to specific problems instead of meeting the needs through broader activities.

Specialists assisted growers of these truck crops by spending 66 days in the field and by making 121 visits in 43 counties. Forty-four meetings were held and 6 radio programs presented.

A demonstration planting of 20 varieties of sweet corn in replicated plots was made in eastern Virginia. Interested growers inspected the planting. Also, in eastern Virginia, demonstration plantings of 18 varieties of radishes in the greenhouse and in the field and 5 varieties of carrots, all in replicated plots, were made to teach and interest growers in these crops.

The monthly "Vegetable Growers News," of which 40,500 copies were distributed during the year, contained many articles about this group of crops.

Virginia Agricultural Extension Bulletin 212, "Fertilizing Virginia Vegetables," was published in March 1954. Fertilizing programs were recommended in this bulletin for all vegetables likely to be grown in Virginia, which, of course, included all vegetable crops in the miscellaneous truck crops program. Five thousand copies of this bulletin have been distributed.

GENERAL VEGETABLE PROJECT ACTIVITIES

Other activities of vegetable specialists which were not confined to any single phase of the vegetable project should be mentioned. Horticultural exhibits at 19 area fairs were judged. A vegetable specialist was in charge of the 4-H Club vegetable display at the Atlantic Rural Exposition. Specialists arranged and conducted a vegetable panel discussion at the Institute of Rural Affairs. Vegetable specialists participated in the "information cafeteria" at the Annual Extension Conference whereby visiting county personnel could consult with any specialist in any Extension service. Tours of vegetable experimental plots were conducted for visiting groups and for 4-H Club members attending their annual conference. Specialists occasionally lectured at college vegetable classes and sometimes took part in college laboratory work. Also, advice and hard work

were contributed to the vegetable exhibit at the Student Horticultural Show. There were other minor activities too numerous to mention.

PUBLICITY

The usual means of publicity were used, including the distribution of 77,150 informational publications and 80,000 gardening circular letters. Fifty-four radio and 5 television programs were conducted and 95 newspaper articles were released. During 1954 a new bulletin, "Fertilizing Virginia Vegetables," was published and the entire supply of 5,000 copies is exhausted. A revised issue of the bulletin is now at the press. Also, during the year a Virginia Joint Agricultural Publication No. 1, "Growing and Selling Sweet Potatoes in Virginia," was published and well received.

A partial list of the material used during the year is as follows:

Vegetable Growers News	- 40,500
Cir. 475 - Vegetable Suggestions for Virginia Farmers	- 10,300
Cir. 471 - Growing and Marketing Irish Potatoes in Virginia	- 400
Va. Pub. 1 - Growing and Selling Sweet Potatoes in Virginia	- 2,000
Cir. 473 - Growing and Marketing Sweet Potatoes in Virginia	- 200
Bul. 212 - Fertilizing Virginia Vegetables	- 5,000
Bul. 183 - Fertilizer Recommendations for Virginia	- 200
USDA Farmers' Bulletin 1939 - Home Storage of Vegetables and Fruits	- 2,500
USDA Misc. Publication 605 - Vegetable Gardeners' Handbook on Insects and Diseases	- 1,600
USDA Farmers' Bulletin 1743 - Hotbeds and Coldframes	- 1,000
USDA Suburban and Farm Vegetable Gardens #9	- 2,500
USDA 2045 Commercial Production of Tomatoes	- 800

Mimeographed Material

Asparagus Culture for the Home Garden	- 1,200
Onion Culture for the Home Garden	- 1,000

Leader Trainer Garden Topics	- 1,200
Plant, Grow, and Freeze Fruits and Vegetables	- 1,200
Small Fruits in the Home Garden	- 1,100
Timely Control of Garden Pests	- 1,450
Grape Spray Calendar	- 1,200
Raspberry Spray Calendar	- 1,100
Everbearing Strawberries are Ideal for the Home Garden	- 1,200
The Use of Sawdust as a Mulch	- 2,000

The Vegetable Growers News is published by the Virginia Agricultural Extension Service and the Virginia Truck Experiment Station.

In addition to the material just mentioned, various information was sent out in response to specific requests.

We are now writing and expect to publish in early 1955, a vegetable gardening bulletin to take the place of circular 475 which has not been materially altered in format for 20 years. We also expect to publish in 1955 a tomato bulletin and 20 single sheet circulars on production problems of different kinds of vegetables. We hope also to publish a manual on vegetable exhibits.

OTHER EXTENSION ASSISTANCE

One-third of the time of the Head of the Department of Horticulture is assigned to Extension. Much of this time is required by administrative matters, but the remainder is given to horticultural field work. The Head of the Department assisted the specialists by valuable advice and, whenever time would permit, by participating in the activities of the vegetable project.

OTHER ACTIVITIES

Vegetable specialists took part in many other Extension activities which were not directly a part of the vegetable project. They attended and served on various committees and assisted in registration at the

Institute of Rural Affairs, Annual Extension Conference, 4-H Club Short Course, Garden Lovers Short Course and Flower Judging School. They attended 9 Extension staff conferences and agricultural faculty meetings as well as many college seminars and several college convocations. Specialists performed quite a few services outside of the vegetable project, such as, making recommendations on 901 soil tests for plants other than vegetables.

OUTLOOK FOR 1955

Vegetable Extension work in 1955 will be largely devoted to the five major programs as in 1954. Close coordination will be maintained with the county Extension personnel to provide an effective program.

All the activities herein listed will be continued with the exception of the N.J.V.G.A. program which will be discontinued. An important new phase of the vegetable project will be its participation in the general Extension Service Farm and Home Development program. Also, emphasis will be placed on producing pertinent publications concerned with vegetable production, the lack of which has been somewhat of a handicap.

County Extension personnel in eastern Virginia, vegetable specialists, and others will meet in December 1954 to discuss problems of the vegetable industry and plan how to meet these problems. Much is expected of this meeting which will be an annual event.

Vegetable Garden. We think there will be about the same number

of gardens in 1955 and the production in volume will about equal that of 1954. The monetary value of the garden will depend on prices, but emphasis will be placed on the dietetic value. We think much can still be done toward improving the health and standard of living by the efficient operation of a well-planned garden. The program we now have seems to be producing results so we expect to continue it with perhaps some difference in emphasis.

Potatoes. The outlook for the potato crop in 1955 is fairly good. Early potatoes sold before June 20 should bring satisfactory prices. The price for seed potatoes will be relatively high as the market for potatoes will be high at planting time causing an increase in acreage planted. Prices are not expected to be satisfactory for Virginia's small late potato crop. However, some growers should consider producing a variety like Kennebec to sell in the south to develop a southern market outlet for future years.

Extension vegetable specialists will continue in their efforts to assist the growers in improving cultural practices and disease and insect control, and especially to improve the harvesting, handling, and grading practices.

Sweet Potatoes. Short supplies of Porto Ricos in storage from the 1954 crop should result in improved prices for late spring and early summer sales. The situation again looks good for storage of U. S. No. 1 Porto Ricos and for the cannery deal.

Extension specialists will continue their efforts to increase storage facilities for sweet potatoes and to improve cultural

practices with special emphasis on hill selection.

Tomatoes. The tomato cannery supplies do not appear excessive. The fresh market should be good in 1955 until over-supplied. Fresh market tomato growers should try to have early or late peaks of production to avoid low prices expected during the period of main crop movement.

Specialists will attempt to maintain an increased-yield trend and to improve marketing practices by following their usual procedure and by encouraging 4-H Club members in a tomato production contest.

Miscellaneous Truck Crops. Early and late snap beans should sell well but prices for the main crop may be low. Expected increased acreage of cucumbers may lower prices. Somewhat lower prices for sweet corn, especially the crop for canning, may be expected. Most of the other crops in this group are expected to bring fairly good prices on early and late production but during the main crop period the prices generally are expected to be lower. Growers of any of these crops should plan very carefully in 1955.

Specialists expect to respond to individual requests for aid and to try to be of assistance in planning maturity dates.

STATISTICAL SUMMARY

The following statistics are summarized from the monthly reports of all the personnel of Vegetable Extension.

GENERAL STATISTICAL DATA

Days in field	466
Days in office	577

Days annual leave	61
Days sick leave	34
Number of counties visited	81
Farm and home visits	952
Number of separate visits to counties	325
Conference with agents	482
Demonstrations given	119
Total attendance	3,007
Average attendance	25
Meetings attended	266
Total attendance	12,951
Average attendance	49
4-H Club member enrolled in vegetable projects	8,159
4-H Club meetings	28
Total attendance	1,669
Average attendance	60
4-H Demonstrations given	37
Total attendance	240
Average attendance	6
Fair exhibits judged	19
Soil test recommendations	3,840
Radio talks	54
Television programs	5
Press articles	95
Bulletins prepared	2
Circulars and bulletins distributed	70,156

Letters written	2,801
Miles traveled	67,502

GARDEN PROGRAM

Days in field	170
Conferences with agents	223
Number of counties visited	65
Visits in counties	572
Circulars distributed	5,130
Circular letters prepared	10
Circular letters distributed	80,000
Demonstrations given	32
Total attendance	661
Average attendance	21
Total number of meetings held	112
Total attendance	4,642
Average attendance	41
4-H Club vegetable garden enrollment	8,171
4-H Club meetings	27
Total attendance	1,423
Average attendance	53
4-H Club demonstration	75
Total attendance	1,676
Average attendance	22
4-H Club projects visited	359

Leader Training Meetings	24
Total attendance	514
Average attendance	21
Radio talks	31
T. V. programs	1
Press articles	36
Soil tests recommendations	1,350

IRISH POTATO PROJECT

Days in field	34
Conferences with agents	49
Number of counties visited	10
Visits in counties	58
Circulars distributed	
Number of meetings	18
Total attendance	655
Number of circular letters	7
Circular letters distributed	3,500
Demonstrations given	11
Soil tests recommendations	436
Radio talks	2
Press articles	6

SWEET POTATO PROGRAM

Days in field	53
Conference with agents	53
Number of counties visited	20

Visits in counties	137
Circulars and bulletins distributed	4,000
Number of meetings	18
Total attendance	640
Demonstrations given	13
Total attendance	140
Soil tests recommendations	333
Radio talks	2
T. V. program	1
Press articles	10

TOMATO PROJECT

Days in field	61
Conferences with agents	60
Number of counties visited	26
Visits in counties	109
Circulars prepared	0
Circulars and bulletins distributed	134
Number of meetings	34
Total attendance	1,258
Soil tests recommendations	239
Radio talks	4
T. V. program	1
Press articles	11

MISCELLANEOUS TRUCK CROPS

Days in field	66
Conferences with agents	82

Number of counties visited	41
Visits in counties	121
Bulletin prepared	1
Circulars and bulletins distributed	45,700*
Number of meetings	44
Total attendance	1,590
Demonstrations	11
Total attendance	286
Soil tests recommendations	581
Radio talks	6
Press articles	12

MISCELLANEOUS

Days in field	50
Number of meetings	40
Total attendance	2,003
Soil tests recommendations	1,210
Press articles	5

EXTENSION AND PROFESSIONAL WORKER'S MEETINGS

Days in field	11
Number of meetings	26
Total attendance	1,931
Number of conferences	29
Total attendance	1,647

* This figure includes the monthly "Vegetable Growers News" which numbered 40,500 copies which is published by the Virginia Agricultural Extension Service and the Virginia Truck Experiment Station.

EXHIBITS

For the 1954 Annual Report, only part of the prepared material for use throughout the year is included. The total amount of this material used and prepared may be found by referring to the Statistical Summary of this report.

81 Counties Visited in 1954 in Carrying out the
Vegetable Extension Program

Monthly

The Vegetable Growers News

P. O. BOX 2160 — NORFOLK, VIRGINIA

OL. 8—No. 10 APRIL, 1954

The top photograph shows Cobbler potatoes grown on land not planted to cover crops. The four rows to the left of the front stake received 5-10-5 at the rate of 1000 pounds per acre; the four rows to the right, 2000 pounds.

The bottom photograph shows a similar planting grown on land planted to summer and winter cover crops. Notice the overall superior top growth and the lesser difference between fertilizer treatments.

COVER CROPS IN THE IRISH POTATO ROTATION

By E. M. Dunton, Jr.
Soils Technologist

There has been untold discussion of the value of er crops as soil improvers and stabilizers. Some ngly urge cover crops; others say their value has n over-estimated. The general opinion among agri- ural workers, however, is that cover crops are of value and should be included where possible in the rotation. Work with vegetables in the coastal plain in the past eight years by the Virginia Truck Experiment Station has influenced me to become an advocate of cover crops, particularly where they are planted in the fall for winter cover. One of their great values, lies in the absorbing residual inorganic fertilizers and converting them to more stable organic forms. Winter cover also aids in preventing water and wind erosion which occur even on our coastal plain soils.

(Continued on Page Four)

"The Vegetable Growers News"

is published monthly by the Virginia Polytechnic Institute Agricultural Extension Service with which are cooperating the Virginia Truck Experiment Station and the United States Department of Agriculture, P. O. Box 2160, Norfolk, Va.

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Editorial and Business Office
VIRGINIA TRUCK EXPERIMENT STATION
P. O. Box 2160 Norfolk 1, Va.

A. Vernon Watts
Assoc. Ext. Horticulturist
Editor and Business Manager

HOME GARDENS

By A. Vernon Watts
Associate Extension Horticulturist

A good garden adds much to the well-being of the farm family by supplying foods that might not otherwise be provided. Fresh vegetables direct from the garden are superior in quality to those frequently sold on the market, and in addition are readily available when wanted. Since a large number of farmers now use home freezers, even more of the vegetables from the garden can be utilized than when canning and fall storage were the principal means of preservation.

The most convenient spot for a vegetable garden is near the home.

Fertile, deep, friable, well-drained soil is one of the first essentials for a successful garden. The exact type of soil is not so important. Soil should be well-drained, adequately supplied with organic matter, and retentive of moisture.

The garden should receive the direct rays of the sun all day long. Certain crops can stand some shade, but no amount of fertilizer, water, or care can take the place of needed sunshine.

Where barnyard manure is available, an application at the rate of 8 to 10 tons per acre may be applied each year to an advantage. If this material is not available, compost piles are a satisfactory substitute.

Commercial fertilizers may be used to good advantage on Eastern Virginia farm gardens. For a general application 1000 to 1200 pounds of 8-8-8 or 5-10-5 per acre is recommended. This should be supplemented with some form of nitrogen, as needed, for the leafy vegetables.

Ground limestone is applied to gardens for three purposes: (1) to supply calcium and magnesium, (2) to reduce soil acidity, (3) to improve the physical character of the soil.

No one plan or arrangement for a garden can suit all conditions. Each grower must plan to meet his own problem. Careful planning will cut down the work of gardening and increase the returns from the labor. Planting seeds and plants at random always results in waste and disappointment. Write for circular No. 475 which has a plan for a home garden, a list of recommended varieties, and planting dates.

It always pays the gardner to buy seed from reputable seedsmen and not to depend on home-grown supplies.

The primary value of cultivating is weed contr
This cultivation should be shallow so as to avoid inju
ing the vegetable plant roots that lie near the surfa

Mulching with straw, leaves, pine needles, sawdu
or other materials helps to control weeds, conser
moisture, and add organic matter to the soil when th
decay.

The garden requires a moisture supply equivale
to about an inch of rain a week during the growi
season for best plant growth. It is much better to gi
the garden a good soaking about once a week than
water it sparingly more often.

Plan your garden carefully, test the soil for lir
and fertilizer requirements, use the amounts a
analysis recommended, buy good seed, control insec
and work. Then you will have a good garden for 195

SWEET POTATOES IN 1954

By A. Vernon Watts
Associate Extension Horticulturist

The 1953 acreage of sweet potatoes for Virgin
was 19,000 with an average yield of 150 bushels p
acre. This compares with 17,000 acres for 1952 a
23,000 acres for the ten year average 1942-51. The 19
crop is valued at $4,702,000 compared with $6,055,0
in 1952, down 22%. The 1953 yield of 150 bushels w
up 20 bushels from 1952 and 30 bushels greater th
the 1942-51 average.

The sweet potato produces the more desirable siz
and shapes of roots on certain soils of medium to lig
texture rather than on heavy soils.

The majority of soils that are rated good to exc
lent for sweet potato growing consist of certain ve
friable fine sandy loams, sandy loams, or loamy fi
sands. The soil must be well-drained. An excess
available nitrogen should always be avoided.

In Virginia we have two principal varieties. T
Maryland Golden for canning and early fall mark
and the Porto Rico for the storage type. There are t
promising new varieties, that were recently develop
by the Virginia Truck Experiment Station, Vat
Golden to compare with the Maryland Golden, and t
Virginian for storage.

On truck farms long time rotation plans are i
quently impractical. It is, however, highly importa
to avoid growing sweet potatoes too often on the sa
field.

For bedding purposes the grower should use o
seed stock that is known to be free of any signs of d
ease and that has been carefully selected in the field
harvest for seed purposes. If the grower has not sa
such seed stock, he should try to get it from anot
grower who is known to produce seed of dependa
quality and of reasonable freedom from disease. La
ing such a source, he should inquire through his Cou
Agent about sources of certified seed or plants
establishing a supply of clean stock of his own.

Many diseases of sweet potatoes can be contro
by cutting the roots from the sprouts when they
pulled just prior to setting in the field. Vine cutti
will serve the same purpose as cutting off the roots
unless set early will not size up the potatoes by
usual harvest dates. Vine cuttings or sprout cutti
should always be used for the following year's
supply.

(Continued on Page Four)

TOMATO INSECT CONTROL SUGGESTIONS

By R. N. Hofmaster and D. E. Greenwood

Tomatoes are becoming an increasingly valuable crop on the Eastern Shore of Virginia. Insect damage to tomatoes has also increased to a marked extent in recent years. The vegetable weevil, spider mites and the tomato fruitworm (corn earworm) are now much more important than in pre-war years and require definite control measures. The success of any control program depends to a large extent upon keeping a close check and killing the insects before they increase to damaging numbers. Some growers are probably planting tomatoes under contract to canning companies which may have specific requirements concerning residues. Check with these companies before starting a control program.

WARNING: Insecticides are poisonous. Follow the manufacturer's directions to avoid excessive contamination of food-stuffs and harmful effects through unnecessary exposure to those who handle the materials or operate field machinery.

Plant Dip for Flea Beetle and Colorado Potato Beetle Control

Flea beetle and Colorado potato beetle injury to newly set plants may be decreased by use of a lead arsenate-summer oil emulsion dip before planting. Excellent, ready-to-go, commercial preparations are available and it is strongly suggested that these be used. However, for those of you who prefer to make your own dip the procedure outlined below may be followed.

Use a mixture of three ounces of lead arsenate and two fluid ounces of summer oil emulsion in five gallons of water. *DO NOT USE DORMANT OIL EMULSION.* Form a paste with the lead arsenate, add this to the water, then put in the oil emulsion and stir thoroughly. Dip the tops of the tomato plants until the leaves and stems are wet (15 to 20 seconds) but be careful not to wet the roots. After dipping, drain well in the shade and plant within two hours. Take care to lay the plants so that the liquid will not run down onto the roots. It should be emphasized that this treatment will usually be effective against flea beetles and Colorado potato beetles for a period of approximately one week after transplanting. Unfavorable weather conditions or unusually heavy insect populations may decrease the period of protection. If further treatment is necessary, use 30 pounds of 3% DDT dust per acre or two pounds of 50% DDT wettable powder per 100 gallons of water per acre.

In addition to protecting the plants against insects, the lead arsenate-summer oil emulsion dip also lowers plant transpiration and prevents excessive moisture loss.

Vegetable Weevil

The vegetable weevil is a night feeder and during the daytime hides under clods or trash near the base of the plant. For this reason, *it is important to apply all insecticides in the late afternoon or evening. Acute vegetable weevil injury is often confined to small areas and soil treatments with insecticides are urged as a means of reducing future infestations.* Latest studies at the Virginia Truck Experiment Station indicate that tomato growers should watch for vegetable weevil injury from about May 1 to May 15. Be especially alert in observing fields infested the year before. About June 1 the weevils enter the soil and remain inactive until September.

Foliage Treatment:

1% parathion dust at 30-35 lbs. per acre or 2 lbs. 15% parathion wettable powder per 100 gallons of water per acre.

2½% aldrin dust at 30-35 lbs. per acre or 2 lbs. 40% aldrin wettable powder per 100 gallons of water per acre.

20% calcium arsenate dust at 30 lbs. per acre or 4 lbs. calcium arsenate plus 4 lbs. spray lime per 100 gallons of water per acre.

Soil (Spot) Treatment:

Aldrin at 2½ lbs., or chlordane at 5 lbs. of actual toxicant per acre worked into the top 3 or 4 inches of soil.

Tomato Fruitworm (Corn Earworm)

Dust —3% DDT, 30-35 lbs. per acre.
5% DDD (Rhothane), 30-35 lbs. per acre.

Spray—2 lbs. of 50% DDT wettable powder per 100 gals. of water per acre.
2 lbs. of 50% DDD wettable powder per 100 gals. of water per acre.

It is very important to check for tomato fruitworms at blossom time and first fruit set. A treatment at this time followed by another application in about three weeks is a good precautionary measure.

Tomato Hornworm

Dust — 5% DDD, 40 lbs. per acre.
20% calcium arsenate, 30 lbs. per acre.

Spray—50% DDD wettable powder, 2 lbs. per 100 gals. of water per acre.
25% DDD emulsion, 1 qt. per 100 gals. of water per acre.
Calcium arsenate, 4 lbs. per 100 gals. of water per acre.

Tomato hornworms are very difficult to kill when full grown. However, when small, they are relatively easy to control.

Aphids (Plant Lice)

Dust —1% parathion, 30-35 lbs. per acre.
4% malathion, 30-35 lbs. per acre is suggested on a limited trial basis.

Spray—1 lb. 15% parathion wettable powder per 100 gallons of water per acre. Malathion wettable powder or emulsion according to manufacturer's directions is suggested on a limited trial basis.

(TEPP gives excellent control and does not leave a poisonous residue but should be used with caution as it may cause burning under some conditions.)

When other insects are present, parathion and malathion may be combined with DDT or DDD. An excellent commercially prepared dust containing 1% parathion plus 3% DDT is now available.

Spider Mites

Aramite is suggested on a limited trial basis.

Dust —3% Aramite, 30-45 lbs. per acre.

Spray—15% Aramite wettable powder, 1½ lbs., per 100 gals. water per acre.
(Parathion or malathion could be used but these materials have not given the control desired. TEPP is effective but may cause some burning.)

Plants infested with spider mites have reddish blotches on the tops of the leaves while the undersides of the leaves have a silvery appearance. Mite infestations are particularly bad in dry weather. Tomato fields adjacent to strawberries should be watched closely as the mites often move from the strawberries onto the tomatoes.

NOTE: The use of fungicides for leaf diseases is recommended when late blight is threatening, and for late tomatoes for processing. Most of the insecticides suggested are compatible with these fungicides. DDT and Aramite should not be included in any combination with lime, while calcium arsenate should be used with caution with the organic fungicides. As more new compounds become available the possibility of harmful combinations is increased. **To be safe, check the manufacturer's directions before using any insecticide-fungicide combination.**

SWEET POTATOES

(Continued from Page Two)

For the storage crop, sweet potato plants should be spaced 12 inches apart in the row. This would require 14,250 plnts if the rows were 36 inches apart and 12,446 plants if rows were 42 inches apart.

Potatoes are more uniform and have better shape when grown on ridges and the higher the ridge the better.

For the early market in August, spacing in the rows frequently run up to as high as 20 inches between plants but 16 inches is more frequently used by growers.

To obtain an adequate number of plants to set one acre, all at one early pulling, it is necessary to bed at least 10 to 12 bushels of good quality roots. For the storage crop where two pullings are customary, usually 8 bushels will be sufficient.

In sweet potato production 800 to 1200 pounds of 3-9-9 analysis fertilizer is recommended. The fertilizer may be applied two or three weeks after planting, on top of the row when the plants are dry.

Cultivation serves two purposes: control of weeds and maintenance of ridge height and shape.

Weed control must be practically perfect before the vines become long enough to interfere with cultivation. Sweet potatoes are poor competitors with weeds, which reduce yields and interfere with harvesting.

Why not plan to grow some sweet potatoes for storage this year? We believe stored sweet potatoes will yield returns comparable to or better than many of our other vegetable crops in 1954.

IRISH POTATO COVER

(Continued from Page One)

To determine the value of cover crops in our Irish potato rotations experiments were started in 1948 on plots uniform wtih respect to previous treatment. The potato yields obtained on these plots in 1948 before any of the cover crop treatments were applied are shown in the table. The treatments shown were started in the summer of 1948 after the potatoes were harvested and have been continued to the present. Spring Irish potatoes have been grown on the plots each year with the cover crop treatments applied after the potatoes were dug in early July and in the fall when the rye was seeded.

A comparison of the potato yields for the different treatments in 1948 with those for 1953 indicates the influence of the treatments after five years' application. These differences produced by the different treatments have appeared gradually and have increased with time. During the first year or two of the experiment the were no significant differences. In 1951, and continu thereafter, 1,000 pounds of 5-10-5 were applied to fo of the eight rows of each plot.

Treatments 1, 2, and 3 have received the sa amount of fertilizer in the five years of the test, t treatment differences being that in treatment 1 cover was allowed to grow on the land after potato in treatment 2 native grasses and weeds were allow to grow after the potatoes were harvested, and in tre ment 3 the native grasses grew as in treatment 2 a rye cover was seeded in the fall and plowed under February. The gradual decrease in yields caused treatment No. 1 (no cover) has been one of the ou standing results of this experiment. In addition to t reduction in yield, the potato tops (see picture) we much smaller and maturity was reached sooner wi the no cover treatment. This difference was greate where only 1,000 pounds of the 5-10-5 per acre w used on the potatoes as shown in the table.

The Influence of Cover Crop Treatments on Irish Potato (Cobbler) Yields

	100 lb. bags No. 1 potatoes per a		
	1953		1948
	1000 lb. 5-10-5	2000 lb. 5-10-5	2000 5-10-
1. No cover	86	140	181
2. Native grasses	117	156	147
3. Grasses + rye cover in fall	137	168	164
4. Grass + rye + 1000 5-0-0 to rye	146	170	165
5. Grass + rye + 1000 5-10-5 to rye	150	183	161
6. Sunflowers + rye	128	169	162
7. Grass + rye + 5 T. chicken manure*	173	198	176
8. Grass + rye + 5 T. chicken manure†	175	192	168
9. Sorghum + rye	136	179	181
10. Sorghum + rye + 1000 5-0-0 to rye	149	182	186
11. Soybeans + rye	128	179	175
12. Snap beans + rye	127	166	168
13. Grass + rye, fallow every other year	126	165	163
14. Grass + rye, subsoiled down row	119	154	172
15. Grass + rye + 10 T. Chicken manure (No other fertilizer)	151	172	171

*Applied before planting potatoes.
†Applied before seeding rye in fall.

The figures above are averages of four replications. Whe 1,000 pounds of 5-10-5 were applied to the potatoes treatment is significantly lower than all other treatments. With 2,0 pounds of 5-10-5 to the potatoes treatments 1 and 2 are n significantly different but treatments 1 and 3 are.

The Vegetable Growers News
Norfolk 1, Virginia

Entered as second class matter

Direct for office shown above

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS
VIRGINIA POLYTECHNIC INSTITUTE AND THE UNITED STATES DEPARTMENT OF AGRICULTURE COOPERATING

STATE OF VIRGINIA
November 1, 1954

V. P. I. AGRICULTURAL EXTENSION SERVICE

Blacksburg, Virginia

Virginia Price Outlook for 1955 Vegetables

Asparagus	Production in 1955 from existing beds should be 5 percent larger than in 1954. Prices for asparagus in Virginia may be somewhat lower both for fresh market and cannery sales next year.
Beans, Lima	May be a satisfactory crop in 1955 as low yields in 1954 reduced production for both fresh market and processing. However, prices may be at lower levels than in 1954.
Beans, snap	Heavy supplies in 1954 resulted in generally low prices. Early and late snaps should sell well while prices for the main crop may prove disappointing.
Cabbage	Cabbage prices were generally disappointing in both 1953 and 1954. This should result in a further reduction of acreage in 1955 and some improvement in prices in the early and late marketing periods when the main crop is not moving.
Cucumbers	Production in 1954 was not excessive and prices were fair at times. It is expected the acreage will be increased in 1955 and prices in general may be at somewhat lower levels.
Corn, sweet	Heavy supplies and low quality in 1954 affected prices adversely. The canned supply appears heavy. Somewhat lower prices may be expected in 1955 during the heavy movement periods.
Kale	Kale acreage for 1955 in Virginia appears to be reduced and prices should be more satisfactory this winter and in the early spring than in 1954.
Onions	Acreage planted to onions in 1955 is expected to be increased with somewhat lower prices prevailing from the new crop. The 1954 storage crop should sell satisfactorily.
Peppers	Plantings have been large and quality low with generally unsatisfactory prices. This is expected to continue in 1955 except for short early and late periods of low supply.

Potatoes, early	The carryover of 1954 potatoes should not be excessive. Prices should be satisfactory once the storage deal is underway. The prices expected to be prevailing at planting time in 1955 should increase acreage planted and cause relatively high seed prices. Cobblers of U. S. #1 grade in 100# bags may average $3.00 in May, decline to $2.00 by June 20 and to $1.50 or less by July 1. Growers should do well with potatoes sold before June 20 in 1955.
Potatoes, late	Prices are expected to be generally unsatisfactory for late potatoes in 1955. However, some growers should consider producing Kennebec's or some other variety locally suitable for sale in the south in 1955-56 to start development of a southern market outlet for future years.
Spinach	Production has been declining along with demand. No general improvement in price is expected in 1955.
Sweet potatoes	Short supplies of Porto Ricos in storage from the 1954 crop should result in improved prices for late spring and early summer sales. In 1955 the situation again looks good for storage of Porto Ricos of U. S. #1 and better grade and for the cannery deal.
Tomatoes	Tomato cannery supplies do not appear excessive. The fresh market should be good in 1955 until supplies become excessive. Try for the early and late markets so as to avoid the low prices expected during the period of main crop movement.
Watermelons	The acreage of watermelons has been increased to 115,555 acres in 1954 up 17,748 acres or 18 percent. The hot, dry weather in consuming centers helped demand to hold up well with melons selling at profitable prices. It is expected that acreage will be further increased in 1955 and prices may therefore be at lower levels.

N - O - T - I - C - E

When plants of the virus-free Pocahontas variety of strawberries are available, consideration should be given to production increases.

Very truly yours,

J. L. Maxton

J. L. Maxton
Agri. Economist

L. C. Beamer

L. C. Beamer
Associate Horticulturist

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS

VIRGINIA POLYTECHNIC INSTITUTE AND THE UNITED STATES DEPARTMENT OF AGRICULTURE COOPERATING

STATE OF VIRGINIA

V. P. I. AGRICULTURAL EXTENSION SERVICE

September 2, 1954

Mr. E. A. Davis, Courtland, Va.
Mr. S. J. Dawson, Montross, Va.
Mr. R. G. Eagar, Bowling Green, Va.
Mr. R. A. Farmar, Warsaw, Va.
Mr. J. W. Freeman, Suffolk, Va.
Mr. W. H. Grizzard, Smithfield, Va.
Mr. J. O. Hart, Princess Anne, Va.
Mr. J. D. Hutchinson, Jr., Walkerton, Va.
Mr. H. C. McSwain, Lancaster, Va.
Mr. R. F. Marshall, Lawrenceville, Va.
Mr. R. U. Nottingham, Eastville, Va.
Mr. C. W. Richards, Toano, Va.
Mr. D. T. Rogers, Jr., Emporia, Va.
Mr. J. G. Rogers, Accomac, Va.
Mr. W. V. Saville, Heathsville, Va.
Mr. L. B. Wilkins, Norfolk, Va.

Dear Co-workers:

Most of you were sent a letter prior to the Extension Conference concerning a proposed program of vegetable tip sheets on certain crops to be mailed from your office at various times in the year. Only a few men were able to attend the meeting to discuss this program, and in view of this, it was decided that Mr. Fenne and I would write this letter to you explaining the program, and then let you decide if you think the work is worthwhile to you.

The objectives of the leaflets would be to provide timely information to growers on topics which would be important to them. Each sheet would include only one item of information such as transplanting tomatoes, or how to prepare a seed bed for sweet potatoes. Possibly four or five sheets would be prepared on each vegetable. These leaflets would be prepared by us in cooperation with the Truck Station at Norfolk and be mailed to you in sufficient quantity to send one to each of your growers. You would determine the proper time to mail them in your county. It would be necessary for you to provide the help to place the leaflets in addressed envelopes.

Since we held the meeting with a few of you, I have talked with the other members in vegetable extension and Mr. Fenne, and we feel that we can offer you this program on sweet potatoes or tomatoes or both. After you have had time to think over a program of this type, please indicate your interest by filling out the questionnaire and mail it to me not later than September 15 so we will be able to make plans for the next year's work. The leaflets will have to be written this fall in order to be ready in time.

If you have any question on anything I have not made clear, please write me.

Sincerely,

George R. Williams

George R. Williams
Associate Horticulturist

GRW:gs
Enclosure
cc: A. Vernon Watts
S. B. Fenne

COOPERATIVE EXTENSION WORK
IN
AGRICULTURE AND HOME ECONOMICS
STATE OF VIRGINIA

VIRGINIA POLYTECHNIC INSTITUTE AND
UNITED STATES DEPARTMENT OF
AGRICULTURE COOPERATING

EXTENSION SERVICE
COUNTY AGENT WORK

P. O. Box 2160
Norfolk 1, Va.
February 16, 1954

Dear Co-worker:

Enclosed herein please find the following material:

(1) Tomato Insect Control Suggestions.
(2) Rate of Insecticide Application.
(3) Suggestions for Insect Control in the Home Garden.

These three mimeographs were prepared by Dr. R. N. Hofmaster.

(4) Tomato Diseases in Eastern Virginia by Mr. T. J. Nugent.

With the sheet Mr. Fenne recently sent you on "Spraying and Dusting Tomatoes for Disease Control", I believe you have the material needed to help answer some of the questions that unquestionably will arise this coming season.

If you need a few additional copies for some of the professional workers in your county, we will be glad to supply your needs as long as our limited supply lasts.

Very truly yours,

A. Vernon Watts

A. Vernon Watts
Associate Extension Horticulturist

jh

RATE OF INSECTICIDE APPLICATION

R. N. Hofmaster
Virginia Truck Experiment Station

It is a common practice to think that if a little is good, more is better. This is a very dangerous line of thought as far as the application of insecticides is concerned. Many insecticides are harmful to the plants if applied at excessive rates and more harm will be done by the insecticides than by the insects. Then too, we may build up needlessly high residues on the foliage and fruit or in the soil. It is far better to under-dose than to over-dose. Based on a 3-foot distance between rows, one pound of dust applied at the standard rate of 30-35 lbs. per acre will treat approximately 450 feet of row. One gallon of spray applied at the rate of 100 gallons per acre will cover 145 feet of row. These rates are sufficient to give good insect control.

In the table below the rates of spray materials needed for 100 gallon lots are broken down into one gallon terms. The values given for the one gallon rate are only approximate since commercial products vary greatly in fluffiness, etc.

Insecticide formulation	Rate per 100 gallons	Rate per gallon
DDT (50%) wettable powder	2 pounds	1-2 tablespoons
TDE (Rhothane) 50% wettable powder	2 pounds	2 tablespoons
Lindane (25% gamma) wettable powder	1 pound	½-1 tablespoon
Methoxychlor (50%) wettable powder	2 pounds	2 tablespoons
Rotenone (approximately 5%)	2½ pounds	2½ tablespoons
Lead arsenate	2 pounds	1 tablespoon
Aramite (15%) wettable powder	1½ pounds	1 tablespoon
Wettable sulfur	8 pounds	2 tablespoons
Nidotine sulfate (40%)	1 pint	1 teaspoon
DDT emulsion (25%)	1 quart	2 teaspoons
Toxaphene emulsion (60%)	3 pints	3 teaspoons or 1 tablespoon

COOPERATIVE EXTENSION WORK
IN
AGRICULTURE AND HOME ECONOMICS
STATE OF VIRGINIA

VIRGINIA POLYTECHNIC INSTITUTE
AND UNITED STATES DEPARTMENT
OF AGRICULTURE, COOPERATING

EXTENSION SERVICE

P. O. Box 2160
Norfolk 1, Va.
June 11, 1954

Dear Co-worker:

Please find enclosed herewith a copy of "Chemical Weed Control Suggestions for Vegetable Crops" (revised May, 1954).

This material has been prepared by Dr. L. L. Danielson, Plant Physiologist, Virginia Truck Experiment Station, Norfolk, Virginia.

Please read carefully the first paragraph on page 1, relative to "precautions" incident to the use of chemical weedkillers.

Limited additional copies for your professional workers are available upon request.

I trust this material will be of value to you in your work.

Very truly yours,

A. Vernon Watts

A. Vernon Watts
Associate Extension Horticulturist

AVW:jh

CHEMICAL WEED CONTROL SUGGESTIONS FOR VEGETABLE CROPS

(Revised May, 1954)

The Virginia Truck Experiment Station, Norfolk, Virginia

Prepared by

L. L. Danielson, Plant Physiologist

CONTENTS

PRECAUTIONS

The following materials and methods are presented for trial purposes only. They must be used repeatedly on a small trial basis by the grower to test their effectiveness under local conditions before any large scale applications are made. This cautious approach must be observed due to the many factors which affect results. The timing of applications with respect to the crop and weed growth, the soil type involved, the current weather conditions, and the equipment used to make the application of the chemical, are all important factors in determining the success or failure of the methods. In addition, and of greatest importance, the grower gains experience in these small trials which will help him to avoid serious mistakes when large areas are treated at a later date.

Trade names of the chemicals are used as a matter of convenience for those who are interested in obtaining them. Consult your local dealers in agricultural chemicals for the materials mentioned herein.

* * * * * * * *

ASPARAGUS

Problem: Control of germinating winter weeds in established fields during dormancy.

Chemical: 3-Chloro-IPC Weedkiller and Crag Herbicide No. 1. Spray Mixture: Dissolve 2 lbs. of Crag No. 1 in 50 gals. of water and add 1 qt. of 3-Chloro-IPC. Am't. Spray Per Acre: 50 gals. Time of Application: After cold weather has killed ferns, disk them down and apply spray as a soil treatment to kill germinating chickweed, henbit, annual blue grass and rye grass. Established weeds must be removed before spraying. CAUTION: Apply only during dormancy. A single application during early winter is usually sufficient to control winter weeds but two or more may be used if needed.

Alternate Chemical: Karmex W. Spray Mixture: 1.0 lb. active chemical to 50 gals. water. Am't. Spray Per Acre: 50 gals. Time of Application: After ferns have died down in fall, diskthem down very lightly and spray immediately. CAUTION: Do not cultivate until weeds appear again.

Problem: Control of partially grown winter weeds in established fields during dormancy.

Chemical: Sinox P.E. Weedkiller or Dow Premerge Weedkiller. Spray Mixture: 1 gal. to 50 gals. of water. Am't. Spray Per Acre: 50 gals. Time of Application: Spray young, growing chickweed and henbit during winter period before spears emerge. CAUTION: Apply only during dormancy of the asparagus. This treatment suggested for trial where winter weeds have emerged before the preceding soil treatment ethod could be used. Weeds must be small and in the early growing stage at time of treatment.

lternate Chemical: Karmex W applied as described above for germinating winter weeds.

ASPARAGUS (con't.)

Problem: Control of weeds germinating during the cutting season.

An application of either of the above treatments depending on weed growth stage two to four weeks before spears come up will help in controlling weeds during the cutting season if cultivation is avoided following treatment. CAUTION: No chemicals are available for use during the cutting season. None of the preceding treatments should be applied during cutting under any circumstances.

The Karmex W at 2 lbs. per acre applied before the cutting season has given control throughout this period in some cases.

Problem: Control of weeds germinating after the cutting season.

Chemical: Crag Herbicide No. 1. Spray Mixture: 2 lbs. to 50 gals. of water. Am't. Spray Per Acre: 50 gals. Time of Application: Immediately after cutting is completed, cultivate, hand weed if necessary, and apply spray as a soil treatment to kill germinating crab grass and other weeds. Sprays may be repeated after each cultivation. Cultivate only if necessary to control weeds. CAUTION: Do not cultivate until weeds appear again.

Alternate Chemical: Karmex W. Spray Mixture: 1.0 lb. active chemical to 50 gals. water. Am't. Spray Per Acre: 50 gals. Time of Application: Cultivate after cutting is completed and spray immediately using drop lines. CAUTION: Do not cultivate until weeds appear again.

SNAP BEANS AND LIMA BEANS

Problem: Control of weeds which emerge at the same time beans emerge.

Chemical: Dow Premerge Weedkiller or Sinox P.E. Weedkiller. Spray Mixture: 1 gal. to 50 gals. of water. Am't. Spray Per Acre: 50 gals. Time of Application: Immediately after planting if possible, or at least before beans break through the soil. CAUTION: Spray only one time.

BROCCOLI

Problem: Control of annual summer weeds when this crop is grown for sprouts by direct seeding.

Chemical: 3-Chloro-IPC Weedkiller. Spray Mixture: 2 qts. in 50 gals. water. Am't. Spray Per Acre: 50 gals. Time of Application: Immediately after seeding. CAUTION: Apply once and only as indicated.

CANTALOUPES, CUCUMBERS, AND WATERMELONS

Problem: Control of annual weeds which emerge with the crop.

Chemical: Alanap 1 Spray Mixture: 3 lbs. to 50 gals. water. Am't. Spray Per Acre: 50 gals. Time of Application: Immediately after seeding.

CARROTS AND PARSLEY

Problem: Control of annual grasses and broadleaf weeds in these crops.

Chemical: Stoddard Solvent Oil. Spray Mixture: Use full strength. Am't. Spray Per Acre: 80 to 120 gals. depending on weed growth and volume required to thoroughly wet weed foliage. Time of Application: Spray parsley as soon as weeds appear. Spray carrots after they reach the 3-leaf stage and weeds are up. CAUTION: Do not spray when plants are wet from dew or rain. Use only enough oil to thoroughly wet weed foliage. When buying this oil, ask your oil dealer for the Stoddard Solvent Oil they recommend for weed control in carrots and parsley. Do not spray later than six weeks before harvest.

SWEET CORN

Three methods of pre-emergence control are listed for convenience depending on availability of materials and equipment. Only one method should be used because use of more than one will cause severe injury to the crop.

Problem: Control of grass and broadleaf weeds during germination and early growth of corn before it can be cultivated.

Preferred Pre-Emergence Spray Application:

Chemical: 2,4-D Amine Salt Weedkiller (4 lbs. per gal.) Spray Mixture: 3 pints to 50 gals. of water. Am't. Spray Per Acre: 50 gals. Time of Application: Spray immediately after planting. CAUTION: Plant corn at normal depth. Avoid use on very sandy soils or try one-half of suggested amount of chemical. Use only one 2,4-D spray per season. Do not, under any circumstances, use this rate of application after corn is up.

The low volatile esters of 2,4-D may be used in place of the above if desired.

Chemical: 2,4-D Low Volatile Ester Weedkiller (4 lbs. per gal.) Spray Mixture: 1½ pints in 50 gals. water. Am't. Spray Per Acre: 50 gals. Time of Application: Immediately after planting. CAUTION: Plant corn at normal depth. Avoid use on very sandy soils or try one-half of suggested amount of chemical. Use only one 2,4-D spray per season. Do not, under any circumstances, use this rate of application after the corn is up.

SWEET CORN (con't.)

Alternate Pre-Emergence Spray Application:

Chemical: Sinox P.E. Weedkiller or Dow Premerge Weedkiller. Spray Mixture: 2 gals. in 50 gals. of water. Am't. Spray Per Acre: 50 gals. Time of Application: Spray immediately after planting if possible or at least before the germinating corn breaks the soil. CAUTION: Spray only once. Do not, under any circumstances, use this rate of application after corn is up.

Pre-Emergence Dry Application:

Chemical: Aero Cyanamid. Rate Per Acre: 300 lbs. Time of Application: Apply broadcast by hand or use cyanamid distributor immediately after planting or just before corn comes up. General fertilizer used may be a low nitrogen analysis material as Aero Cyanamid at the rate suggested will provide about 60 lbs. of nitrogen. CAUTION: Use only one application.

Problem: Killing of growing broadleaf weeds in growing corn.

Chemical: 2,4-D Amine Salt Weedkiller (4 lbs. per gal.) Spray Mixture: ½ pint in 10 gals. Time of application: After corn is up and until lay-by time. CAUTION: Use only one spray per season. Drop pipes should be used when corn is above 12 inches high to prevent spray from hitting crown of corn plant. Cultivate soil over brace root area of corn before spraying when corn is over 12 inches high. Wherever possible, spraying should be avoided after corn is 15 inches high.

VEGETABLE LEAF CROPS

Crops: Spinach, kale, collards, cabbage, Hanover salad, turnip greens, upland cress, and beet greens. The following suggestions apply to these crops only when they are grown for leaf harvest.

Problem: Weed control in these crops when planted in the period from June 1st to September 15th.

Chemical: 3-Chloro-IPC Weedkiller. Spray Mixture: 2 qts. in sufficient water to make 50 gals. of spray solution. Am't. Spray Per Acre: 50 gals. Time of Application: Apply as a soil spray immediately after planting. CAUTION: One application only.

Problem: Weed control in these crops when planted in the period from September 15th to June 1st.

Chemical: 3-Chloro-IPC Weedkiller. Spray Mixture: 1 qt. in sufficient water to make 25 gals. of spray solution. Am't. Spray Per Acre: 25 gals. Time of Application: Apply as a soil spray immediately after planting. CAUTION: One application only.

VEGETABLE LEAF CROPS (con't.)

Weeds Controlled: Crab grass, bull grass, and purslane are controlled in summer applications. Chickweed and annual blue grass are controlled in cool weather applications.

General Observations: Best results are obtained when soil is moist enough for quick weed seed germination. Crop seed should be planted at normal depth. Cultivation of treated soil may destroy effect of treatment. If soil is moist at time of treatment, weed control may be maintained for 3 to 6 weeks and in some cases for a much longer period. Longest periods of control are usually obtained during the cool part of the year. If soil is very dry at time of treatment, doubling the volume of water used to apply the recommended amount of chemical may improve the chances of obtaining satisfactory weed control under such soil conditions.

LETTUCE

Problem: Control of annual weeds in seeded lettuce.

Chemical: 3-Chloro-IPC Weedkiller. Spray Mixture: (June 1 to Sept. 15) - 2 qts. to 50 gals. water. (Sept. 15 to June 1) - 1 qt. to 50 gals. water. Am't. Spray Per Acre: 50 gals. Time of Application: Immediately after seeding. Caution: Use lower rate if seeded in hot beds.

ONIONS

Problem: Killing growing weeds in seeded or set onions.

Chemical: Aero Cyanate Weedkiller. Spray Mixture: 1% solution (8 lbs. to 100 gals. of water), 2% solution (16 lbs. to 100 gals. of water). Am't. Spray Per Acre: 60 to 100 gals. of 1% spray on onions having less than 3 leaves or the same volume of 2% solution on older onions. Sufficient spray to thoroughly wet weed foliage should be used but not to exceed 100 gals. per acre. Time of Application: Spray after weeds are up and are small and temperature is above 60 degrees.

Problem: Killing weeds in set onions.

Chemical: 3-Chloro-IPC Weedkiller. Spray Mixture: (June to September 1) 2 qts. to 50 gals. water. (September 15 to June 1) 1 qt. to 50 gals. water. Am't. Spray Per Acre: 50 gals. Time of Application: Immediately after setting onions. CAUTION: Spray only once.

MAY PEAS

Problem: Control of annual weeds which emerge with the peas.

Chemical: Sinox P.E. or Dow Premerge. Spray Mixture: 2 gals. to 50 gals. water. Am't. Spray Per Acre: 50 gals. Time of Application: Immediately after planting. CAUTION: Spray only once.

IRISH POTATOES

Problem: Control of annual weeds following dragging off.

Chemical: Dow Premerge or Sinox P.E. Spray Mixture: 2 gals. to 50 gals. water. Am't. Spray Per Acre: 50 gals. Time of Application: Immediately after dragging off. CAUTION: Do not spray after potato plants are through the soil. Spray only once.

Problem: Control of annual weeds following last cultivation.

Chemical: Crag Herbicide No. 1. Spray Mixture: 3 lbs. to 50 gals. water. Am't. Spray Per Acre: 50 gals. Time of Application: Immediately following last cultivation. CAUTION: Use a directed spray to apply material to soil and base of plants avoiding foliage as much as possible. Use only one application. Do not use this spray following the dinitro spray suggested above for use following dragging off except on a very small scale trial.

STRAWBERRIES

Problem: Controlling weeds throughout the year.

(New Plantings) Chemical: Crag Herbicide No. 1 and 3-Chloro-IPC Weedkiller. Spray Mixture: Dissolve 2 lbs. Crag No. 1 in 50 gals. of water and add 2 qts. of 3-Chloro-IPC. Am't. Spray Per Acre: 50 gals. Time of Application: Apply as a soil spray before weeds are up in all cases. Make first application 7 to 10 days after setting new plants. Make second application following any necessary hand-weeding and cultivation in June. Make third application following any necessary hand-weeding and cultivation in October. CAUTION: Avoid spraying during rooting of runner plants, fruit bud development, flowering, and fruiting. Suggested timing of applications avoid these periods in Virginia (Tidewater). Applications suggested are based on experience with the Blakemore variety. Other varieties must therefore be treated on a very small scale to determine their tolerance of these chemicals.

(Old Plantings) Chemical: Crag Herbicide No. 1 and 3-Chloro-IPC Weedkiller. Spray Mixture: Dissolve 2 lbs. of Crag No. 1 in 50 gals. of water and add 2 qts. of 3-Chloro-IPC. Am't. Spray Per Acre: 50 gals. Time of Application: Thin, hand-weed, fertilize, and spray old plantings after picking is completed. Make second application following hand-weeding and cultivation in October. CAUTION: Avoid spraying during rooting of

STRAWBERRIES (con't.)

runner plants, fruit bud development, flowering, and fruiting. Suggested timing of applications avoid these periods in Tidewater Virginia. Applications suggested are based on experience with the Blakemore variety and other varieties must therefore be treated on a very small scale to establish their tolerance of these chemicals.

Problem: Killing partially grown summer broadleaf weeds in old plantings.

Chemical: 2,4-D Amine Salt Weedkiller (4 lbs. per gal.) Spray Mixture: 1 pint in 5 gals. of water. Am't. Spray Per Acre: 5 gals. Time of Application: After picking is completed. During early, rapid growth of weeds. Spray once, hand-weed for grasses in 4 weeks, clip with mower and apply treatments suggested in the previous section using Crag Herbicide No. 1 and 3-Chloro-IPC Weedkiller as a soil spray for germinating weeds. CAUTION: Avoid spraying during rooting of runner plants, fruit bud development, flowering, and fruiting. Application suggested is based on experience with the Blakemore variety. Other varieties must therefore be treated on a very small scale to determine their tolerance of these chemicals.

Problem: Killing germinating and partially developed winter annual weeds.

Chemical: Sinox P.E. Weedkiller or Dow Premerge Weedkiller. Spray Mixture: 1 gal. to 50 gals. water. Am't. Spray Per Acre: 50 gals. Time of Application: After seasonal growth is completed and weeds are small. The period from November through January is suggested for Tidewater Virginia. CAUTION: Apply once during this period. Avoid application on plants severely burned by fertilizer application and avoid large broadcast fertilizer applications after spray. Do not, under any circumstances, apply this material after berry plants have begun spring growth. Application suggested is based on experience with the Blakemore variety.

METHOD OF APPLYING CORRECT AMOUNT OF SPRAY SOLUTION PER ACRE

Gals. of Spray Per Acre	Tractor Speed 3 m.p.h.		Tractor Speed 4 m.p.h.	
	T-Jet Nozzle No.	Lbs. Pressure	T-Jet Nozzle No.	Lbs. Pressure
5	80067	25	80067	40
10	8001	40	80015	30
25	8003	30	8004	30
50	8006	30	8008	30
100	8010	40	8015	30

SPRAYING WETTABLE POWDER CHEMICALS

A large percentage of the sprayers now being used for weed control in this area are of the gear type or nylon roller type which are convenient to use and are low in price. The gear pumps will not handle wettable powders such as Alanap and Karmex W without excessive wear. The roller type pumps will handle these materials if good agitation is maintained. This agitation may be obtained by using one of the new jet agitator nozzles on the by-pass line from the pressure regulator.

All water soluble chemicals and emulsifiable chemicals may be used in these pumps.

Fertilizers

Grades which may be sold in Virginia July 1954 to July 1955

Grade	Ratio	Grade	Ratio
0-14-14	0-1-1	13-13-13	1-1-1
0-20-20	0-1-1	14-14-14	1-1-1
0-30-30	0-1-1	6-8-6	1-1.3-1
0-10-20	0-1-2	5-10-5	1-2-1
0-15-30	0-1-2	10-20-10	1-2-1
0-16-8	0-2-1	5-10-10	1-2-2
0-40-20	0-2-1	10-20-20	1-2-2
14-0-14	1-0-1	4-12-8	1-3-2
20-0-20	1-0-1	3-9-9	1-3-3
10-6-4	1-0.6-0.4	4-12-12	1-3-3
8-8-8	1-1-1	3-9-12	1-3-4
10-10-10	1-1-1	4-16-8	1-4-2
12-12-12	1-1-1	2-12-12	1-6-6

Tobacco Grades

8-0-24	4-9-3
4-8-10	3-9-6
6-12-15	2-10-8

Vegetable Extension Meeting
Norfolk Truck Station

10:00 A. M. May 26, 1954

10:00 - 10:10	Opening Remarks - George Williams
10:10 - 10:25	Problems in Sweet Potato Marketing and Production in Accomac County - John G. Rogers
10:25 - 10:40	Problems in Growing and Marketing Tomatoes and Cabbage in Northampton County - Roy U. Nottingham
10:40 - 10:55	Problems in Growing and Marketing Irish Potatoes in Princess Anne County - John O. Hart
10:55 - 11:00	Recess
11:00 - 11:15	Outlook for the City Market in Norfolk and Sweet Corn Production and Marketing Problems in Norfolk County - L. B. Wilkins
11:15 - 11:30	Watermelon Production and Marketing Problems in Isle of Wight County - Walter Grizzard
11:30 - 11:45	Problems in Production and Marketing of Sweet Potatoes for Storage in Southampton County - E. A. Davis
11:45 - 12:00	Problems in Production of Snap Beans and Greens for Processing - J. W. Freeman
12:00 - 1:30	Lunch
1:30 - 1:45	Extension Program in Processing - Roy E. Moser
1:45 - 3:00	Development of Vegetable Extension Program for the Area
3:00	Adjourn

Home Garden Project
65 **Counties Visited**

Circular 475 (Revised) January, 1962

Vegetable Garden Suggestions for Virginia

L. C. Beamer
F. H. Scott

Horticultural Department
V. P. I.
Agricultural Extension Service

Virginia Polytechnic Institute and the United States Department of Agriculture Cooperating: Extension Service
L. B. Dietrick, Director, Blacksburg, Virginia

Printed and distributed in furtherance of the Acts of Congress of May 8 and June 30, 1914

4-H
Club

Vegetable Gardening Manual

VIRGINIA 4-H CLUB SERIES

Agricultural Extension Service of V. P. I.
Blacksburg, Virginia

Circular 376 (Revised) 1954

Virginia Polytechnic Institute and the United States Department of Agriculture cooperating: Extension Service
L. B. Dietrick, Director, Blacksburg, Virginia

Printed and distributed in furtherance of the Acts of Congress of May 8 and June 30, 1914

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS
STATE OF VIRGINIA, VIRGINIA POLYTECHNIC INSTITUTE AND USDA COOPERATING
* * *
Extension Service

JUNE GARDEN SUGGESTIONS

This is the time of year that the vegetable garden can get away from you if you find too many other things to do. F. H. Scott offers the following suggestions for June garden care.

WEEDS During June the weeds which have been giving you some trouble all the spring become probably the biggest pest. Any volunteer plants that grow in your garden where they are not wanted are weeds, and, of course, this includes grasses. Weeds do much harm to the garden vegetables by crowding, shading, and by competing for moisture and nutrient materials.

The important rule in weed control is frequent and shallow cultivation. The cultivation should be frequent enough to destroy weeds when young. If the weeds are permitted to get large, they will have done considerable damage. Some vegetable roots grow within one or two inches of the surface so the cultivation should be very shallow to avoid destroying the vegetable roots.

Weeds may be controlled by cultivation or by the use of chemicals. In my opinion, it is not practical to use chemicals in the home garden because such a large number of different kinds of vegetables are grown, it would require a great deal of skill and knowledge to apply chemicals efficiently. Cultivating machines, tools, and the hands are still the gardener's best means for controlling weeds.

Horse drawn cultivators will do a good job if the gardener will use a cultivator and not a turnplow. There are also many different kinds of garden tractors that perform well. In nearly all cases, where such equipment is used, the rows should be far enough apart to prevent

injury to the vegetables. The wheel hoe with blades that run just under the surface also does an excellent job. The wheel hoe is much less expensive and can be used in narrower rows which is a decided advantage in small gardens. Of course, the wheel hoe is slower and is not power driven. Regardless of how good cultivating equipment is, there must be some weeding done with a hoe and the hands. Efficient equipment though, will greatly reduce hand weeding.

ONIONS FOR STORAGE Storing onions is a problem for many people, but onions should keep fairly well if sufficient care is used. First, you should use varieties that are known to be good keepers, such as, Ebenezer or Yellow Globe Danvers. If you did not plant good keeping varieties this year, it would be better to use them as quickly as possible. Onions for storage should be harvested when a little less than half the tops bend over or turn a greenish-yellow. Pull the onions and leave them under an open shed until curing is indicated by the necks becoming dry. Remove all bulbs that have soft spots, injury or disease of any kind. Leave the tops on and store in cool dry place. They may be spread on a slatted floor or hung in bunches or a net sack.

FALL GARDEN Now is the time to plan the fall garden. As much pleasure and value may be obtained from the garden in the fall as in the summer. There are many fine vegetables that still may be planted for the fall garden. Some of them are broccoli, snap beans, Brussels sprouts, carrots, cauliflower, collards, sweet corn, cucumbers, kale, lettuce, mustard, radish, spinach, tomatoes, turnips, and turnip salad.

Remember, you still may have some fertilizer in the soil from the spring planting so you may reduce the amount of fertilizer for the fall garden. Also, there is usually dry weather when planting the fall garden, so plant a little deeper to take advantage of the more moist soil farther from the surface.

INSECTS AND DISEASES Don't forget to spray or dust to control insects and diseases.

Sincerely,

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS
STATE OF VIRGINIA, VIRGINIA POLYTECHNIC INSTITUTE AND USDA COOPERATING
*** ***
Extension Service

Dear 4-H Club Friend:

We are all happy because you are going to be in the vegetable garden contest this year. Your home agent and I want to help you in every way possible. We think you will do a lot of good, and too you have a chance of winning a prize.

You can have an excellent garden by planting it carefully and following the simple rules of good gardening. We are sending to you with this letter some suggestions that should help you have a better garden, and possibly win a prize. Also your home agent will give you all the help she can when you see her.

Your home agent and I will come to see you in June to score your garden. If you do your best, we know we will see a fine garden.

Sincerely,

F. H. Scott

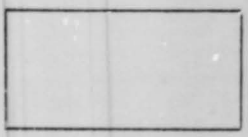
F. H. Scott
Vegetable Garden Specialist

FHS:mll

4-H Club Garden Suggestions

1. Put your garden all in one place and close to the house. This saves labor which is very important on the farm.

2. You can plan and work your garden much better if it has straight edges and is shaped about like this:



3. Plant fifteen different kinds of vegetables.

4. Plant five root, five leafy, and five fruit vegetables. Plant any kinds you want, but here are some suggestions:

ROOT	LEAFY	FRUIT
Carrots	Lettuce	Tomatoes
Beets	Turnip Salad	Snap Beans
Onions	Cabbage	Lima Beans
Radishes	Kale	Sweet Corn
Potatoes	Mustard	Peas
Turnips	Collards	Squash
Sweet Potatoes	Spinach	Cucumbers
Salsify	Broccoli	Peppers

5. Use any variety suitable to where you live. If you are not sure of the variety though, ask your Home Agent.

6. With this letter is our circular called, "4-H Club Vegetable Garden Manual". You will find in it recommended varieties and other information which may be helpful.

7. Keep your garden clean. Get the weeds when they are small. Keep the garden edges mowed down.

COOPERATIVE EXTENSION WORK
IN
AGRICULTURE AND HOME ECONOMICS
STATE OF VIRGINIA

VIRGINIA POLYTECHNIC INSTITUTE
AND UNITED STATES DEPARTMENT
OF AGRICULTURE, COOPERATING

July 9, 1954

EXTENSION SERVICE

Dear 4-H Club Friend:

Mr. F. H. Scott and I have finished scoring your spring gardens. We think you have done exceptionally well this year, and we saw some fine gardens. We hope you will carry on now and plant a fine fall garden. Remember, the fall garden counts as much as the spring garden, and to have a high score for the year, you must have a good fall garden.

If you would like to have a high score, you should plant at least thirteen kinds of vegetables. You should have four root crops, four fruit crops (including seed), and five leafy crops. The planting time for fall crops varies in different communities, but you can talk with your Home Agent about it. I hope you already have in your garden vegetables that will count in your fall garden. Some of these are sweet potatoes, pumpkins, tomatoes, Lima beans, and salsify. You still have time to plant some vegetables. I have listed below some of the vegetables and varieties that you may plant in your fall garden:

Beets - Detroit Dark Red
Onion sets - Ebenezer or Potato
Radish - Cherry Belle or Sparkler
Turnips - Purple Top White Globe
Turnip salad - Purple Top White Globe or Seven Top
Spinach - Virginia Savoy
Mustard - Fordhook Fancy or Tendergreen
Kale - Dwarf Blue Curled Scotch
Collard plants - Vates or Southern Short Stem
Leaf lettuce - Slobolt or Salad Bowl
Head lettuce - Great Lakes or Imperial 44
Cucumber - Burpee Hybrid
Snap beans - Stringless Green Pod or Topcrop
Summer squash - Summer Crookneck or Summer Straightneck

Do not prepare your garden deeply for fall planting, but have it free of weeds and smooth. Dust or spray to control insects and late blight of tomatoes. If you do all these things, I am sure Mr. Scott or I will see a fine garden when we and your Home Agent visit you in September.

Sincerely,

L. C. Beamer

L. C. Beamer
Vegetable Garden Specialist

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COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS
VIRGINIA POLYTECHNIC INSTITUTE AND THE UNITED STATES DEPARTMENT OF AGRICULTURE COOPERATING

STATE OF VIRGINIA

V. P. I. AGRICULTURAL EXTENSION SERVICE

September 16, 1954

Blacksburg, Virginia

To: County Agents, Home Demonstration Agents and District Agents

Dear Co-workers:

The Soil Fertility Essay Contest sponsored by the N.J.V.G.A. is again open to 4-H Club garden members this year. All essays should be mailed to this office by October 15 in order to reach the national office of N.J.V.G.A. on time. Last year Virginia won a regional and state award, and I hope that we will have several essays this year. I am sure you have several good club members in gardening that could write a good essay and thereby have an opportunity to win one of the awards.

The contest is very simple to write up and to enter. Each essay must contain not over 1,000 words and include a story on methods, materials and practices used to maintain and improve the productive capacity of the garden soil. Where possible the report should also include results obtained in better growth, larger yields and improved quality. In other words, the report should include what was done, how it was done, why and what results were obtained from any soil fertility or improvement practice to grow more and better horticultural crops. The use of pictures is encouraged.

Awards for the contest are as follows:

National - $100.00
Regional - $ 50.00
State - two awards of $10.00 each

Sincerely yours,

George R. Williams

George R. Williams
Associate Horticulturist

GRW:gs

SUGGESTIONS FOR INSECT CONTROL IN THE HOME GARDEN

R. N. Hofmaster
Virginia Truck Experiment Station

Types of Insecticides

Insecticides vary in their method of kill.

1. Insecticides which act primarily as stomach poisons: lead arsenate, calcium arsenate, cryolite, etc.

2. Insecticides which act primarily as contact poisons: nicotine, pyrethrum, sabadilla and Tepp.

3. Insecticides which act as both stomach poisons and contact poisons: rotenone, DDT, TDE (Rhothane), Methoxychlor (Marlate), aldrin, dieldrin, toxaphene, parathion, malathion, lindane, heptachlor, and dilan.

4. Insecticides which act by stomach, contact, and fumigation: parathion, malathion, and lindane.

(_____ - Insecticides so indicated are extremely poisonous.)

Types of Injury

Plant feeding insects may be divided into two broad general classes: 1) Those which have chewing mouth parts and actually eat holes in the leaves, fruits, roots, stems or parts thereof, and 2) Those which have piercing-sucking mouthparts and suck the juices from the plant or fruit.

The first step before undertaking any control measures is to determine the type of injury. The foliage chewers are usually fairly large and make conspicious holes in the leaves whereas sucking insects, such as plant lice, are relatively small and leave little external evidences of feeding. Be sure to check plants showing a loss of vigor since sucking insects may be causing this condition. Certain soil insects such as the seed corn maggot or wireworms work on the root systems and also cause reduced vigor or death. There is no way of treating plants damaged by the seed corn maggots or wireworms. Future damage may be greatly decreased by treating the seed or soil before planting.

Insecticides for Chewing Insects

A. Foliage feeders: DDT is still a good all-around insecticide. It is not effective against the Mexican bean beetle and large hornworms. Rotenone, methoxychlor (Marlate) and lindane are other good and relatively safe insecticides. Lindane is particularly outstanding against pests of pickles, cantaloupes and other cucurbits but areas

A. Foliage feeders (con't.): treated with lindane should not be planted to Irish potatoes for a period of two years. Toxaphene, aldrin and DDT are effective for armyworm control.

B. Soil insects:

1. Wireworms or grubs - Aldrin, heptachlor, or chlordane.
2. Seed Corn Maggot - Aldrin, dieldrin, chlordane, or lindane.
3. Cutworms - Toxaphene or aldrin.
4. Ants - Chlordane.

Insecticides for Sucking Insects

Rotenone, pyrethrum, nicotine sulfate (Black Leaf 40), sabadilla and lindane are comparatively safe and effective against most sucking insects. Red spiders (spider mites) are not controlled by the above materials; use sulfur or aramite for mites.

Malathion, a safened relative of parathion, is an extremely promising new insecticide that will control many chewing and sucking insects. Eventually, malathion should fit in well with the home gardener.

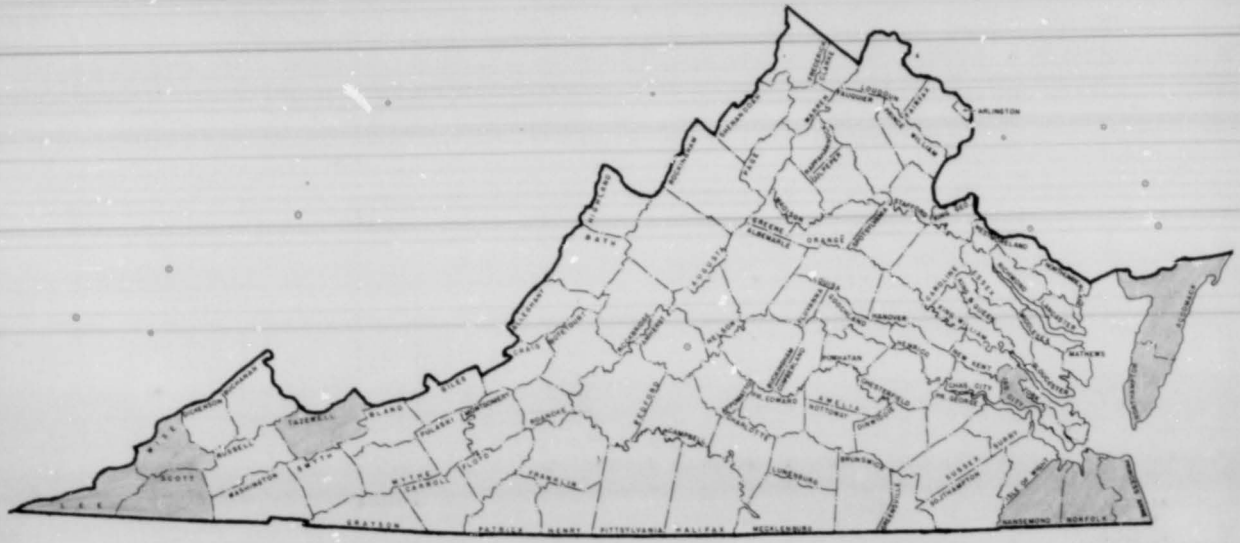
Combinations

The home gardener is interested in controlling as wide a range of insects and diseases with one treatment as possible. The scope of control may be greatly increased by combining different insecticides and/or fungicides.

For example, it is a relatively simple matter to add 40% nicotine sulfate (Black Leaf 40) to DDT sprays and thereby kill plant lice as well as chewing insects. However, for those who do not wish to be bothered or who are confused by names or complicated sounding procedures, excellent, ready-to-go commercial preparations are available. These preparations may be designed to control both the chewing and sucking types of insects as well as diseases. Examples of some of these combinations are: rotenone and pyrethrum sprays or dusts; rotenone, DDT and sulfur dusts; methoxychlor (Marlate) and malathion sprays or dusts; dieldrin plus arasan SF seed treatment, etc. Since many different preparations are available it is strongly suggested that the grower should shop around a bit before buying. Take particular care in reading the labels as these indicate the materials contained and just what insects or diseases may be controlled.

W A R N I N G !!

Insecticides are poisonous. Follow the manufacturer's directions concerning residues and safety precautions. According to law, all insecticides sold for public use must be clearly labeled. Avoid buying those which are not, as these labels are for your protection.



Irish Potato Project
10 **Counties Visited**

Sweet Potato Project
20 Counties Visited

77 pages

Growing and Selling

SWEET POTATOES *In Virginia*

Virginia Joint Agricultural Publication No. 1 April 1954

Published Jointly by the Virginia Department of Agriculture and Immigration, the Virginia Truck Experiment Station, and the Agricultural Extension Service, V. P. I.

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS

VIRGINIA POLYTECHNIC INSTITUTE AND THE UNITED STATES DEPARTMENT OF AGRICULTURE COOPERATING

STATE OF VIRGINIA

P. I. AGRICULTURAL
TENSION SERVICE

STORAGE OF SWEET POTATOES * September 20, 1954

TO: Sweet Potato Growers:

For storage, sweet potatoes are dug when the crop has reached the stage that will give the highest yield of 6 to 8 ounce potatoes. This season, due to the prospects for ample supplies, this size is more important than it has been for the past several years.

Some suggestions on storage: Clean the house thoroughly before filling with potatoes. Handle the potatoes carefully in hauling from the field and in placing in storage. Fill the house as quickly as possible in order to begin the curing process. Provide ample ventilation of the house. A center isle through the storage is of considerable value in checking on the potatoes throughout the storage season and to increase air circulation.

The reasons for curing are twofold: To heal wounds (breaks in the skin) of the potatoes and to reduce shrinkage. The temperature should be held at 85°F. and the humidity at 85% for from ten to fourteen days. The actual time will depend on outside temperatures during the curing period and moisture present in the potatoes at harvest. Do not ventilate too much. Ventilate only enough to prevent excessive moisture condensation on the walls of the storage house. Cure up the potatoes with the water inside. This will cut down on the shrinkage in storage. When sprouts show signs of appearing on the potatoes they are usually cured sufficiently for storage.

After curing, attempt to maintain the temperature at 55°F. during the storage period. Temperatures below 50°, even for short periods of time, will damage the potatoes. Temperatures above 55° cause shrinkage and weight loss by driving off the moisture in the potatoes.

Very truly yours,

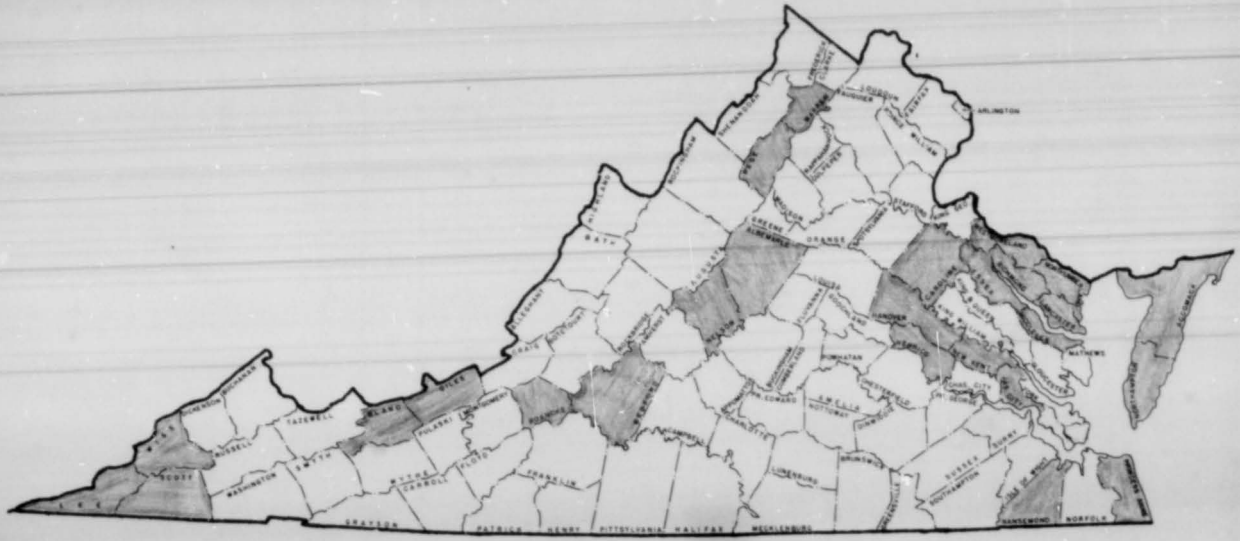
A. Vernon Watts

A. Vernon Watts
Associate Extension Horticulturist

_____
County Agent

AVW:jh

* This is a cooperative release between the Ext. Service and the Va. Truck Expt. Sta.



Tomato Project
26 Counties Visited

COOPERATIVE EXTENSION WORK
IN
AGRICULTURE AND HOME ECONOMICS
STATE OF VIRGINIA

VIRGINIA POLYTECHNIC INSTITUTE
AND UNITED STATES DEPARTMENT
OF AGRICULTURE, COOPERATING

April 9, 1954

EXTENSION SERVICE

Blacksburg, Virginia

TO: All County Agents

Dear Co-workers:

According to Mr. W. H. Matheny, Agricultural Scientist, State Department of Agriculture in Richmond, the freeze in Georgia in early March killed practically all of the early tomato plants. The damage has also been reported to have extended about 100 miles into Florida, and most all the remaining Florida plants have been spoken for. There will no doubt be a supply of Georgia plants later on in the season.

In view of this, a list of Florida plant growers is enclosed, some of which may be able to furnish plants. The Florida State Plant Board does not offer a certification service; however, they do inspect the plants and issue inspection certificates stating the plants are free of injurious pests. Mr. Matheny inspected some Florida plants on April the first and found them to be free of pests, but were ungraded, a little soft, roots void of packing and ranged in size from a match stem to nice sturdy plants.

If I can be of any further help, please let me know.

Very truly yours,

George R. Williams

George R. Williams
Associate Horticulturist

GRW:mll

Enclosure

TOMATO INSECT CONTROL SUGGESTIONS Feb. 15, 1954

R. N. Hofmaster and D. E. Greenwood
Virginia Truck Experiment Station

Tomatoes are becoming an increasingly valuable crop on the Eastern Shore. Insect damage to tomatoes has also increased to a marked extent in recent years. The vegetable weevil, spider mites and the tomato fruitworm (corn earworm) are now much more important than in pre-war years and require definite control measures. The success of any control program depends to a large extent upon keeping a close check and killing the insects before they increase to damaging numbers. Some of you are probably planting tomatoes under contract to canning companies which may have specific requirements concerning residues. Check with these companies before starting a control program.

W A R N I N G !!

Insecticides are poisonous. Follow the manufacturers directions to avoid excessive contamination of food-stuffs and harmful effects through unnecessary exposure to those who handle the materials or operate field machinery.

Plant Dip for Flea Beetle and Colorado Potato Beetle Control

Flea beetle and Colorado potato beetle injury to newly set plants may be decreased by use of a lead arsenate-summer oil emulsion dip before planting. Excellent ready to go, commercial preparations are available and it is strongly suggested that these be used. However, for those of you who prefer to make your own dip the procedure outlined below may be followed.

Use a mixture of 3 ounces of lead arsenate and 2 fluid ounces of summer oil emulsion in 5 gallons of water. DO NOT USE A DORMANT OIL EMULSION. Form a paste with the lead arsenate, add this to the water, then put in the oil emulsion and stir thoroughly. Dip the tops of the tomato plants until the leaves and stems are wet (15 to 20 seconds) but be careful not to wet the roots. After dipping, drain well in the shade and plant within 2 hours. Take care to lay the plants so that the liquid will not run down onto the roots. It should be emphasized that this treatment will usually be effective against flea beetles and Colorado potato beetles for a period of approximately 1 week after transplanting. Unfavorable weather conditions or unusually heavy insect populations may decrease the period of protection. If further treatment is necessary, use 30 pounds of 3% DDT dust per acre or 2 pounds of 50% DDT wettable powder per 100 gallons of water per acre.

In addition to protecting the plants against insects, the lead arsenate-summer oil emulsion dip also lowers plant transpiration and prevents excessive moisture loss.

Vegetable Weevil

The vegetable weevil is a night feeder and during the daytime hides under clods or trash near the base of the plant. For this reason, it is important to apply all insecticides in the late afternoon or evening. Acute vegetable weevil injury is often confined to small areas and soil treatments with insecticides are urged as a means of reducing future infestations. Latest studies at the Virginia Truck Experiment Station indicate that tomato growers should watch for vegetable weevil injury from about May 1 to May 15. Be especially alert in observing fields infested the year before. About June 1 the weevils enter the soil and remain inactive until September.

Foliage Treatment:

1% parathion dust at 30-35 lbs. per acre or 2 lbs. 15% parathion wettable powder per 100 gallons of water per acre.

2½% aldrin dust at 30-35 lbs. per acre or 2 lbs. 40% aldrin wettable powder per 100 gallons of water per acre.

20% calcium arsenate dust at 30 lbs. per acre or 4 lbs. calcium arsenate plus 4 lbs. spray lime per 100 gallons of water per acre.

Soil (Spot) Treatment:

Aldrin at 2½ lbs., or chlordane at 5 lbs. of actual toxicant per acre worked into the top 3 or 4 inches of soil.

Tomato Fruitworm (Corn Earworm)

Dust - 3% DDT, 30-35 lbs. per acre.
5% DDD (Rhothane), 30-35 lbs. per acre.

Spray - 2 lbs. of 50% DDT wettable powder per 100 gals. water per acre.
2 lbs. of 50% DDD wettable powder per 100 gals. water per acre.

It is very important to check for tomato fruitworms at blossom time and first fruit set. A treatment at this time followed by another application in about three weeks is a good precautionary measure.

Tomato Hornworm

Dust - 5% DDD, 40 lbs. per acre.
20% calcium arsenate, 30 lbs. per acre.

Spray - 50% DDD wettable powder, 2 lbs. per 100 gallons of water per acre.
25% DDD emulsion, 1 qt. per 100 gals. of water per acre.
Calcium arsenate, 4 lbs., per 100 gals. of water per acre.

Tomato hornworms are very difficult to kill when full grown. However, when small they are relatively easy to control.

Aphids (Plant Lice)

Dust - 1% parathion, 30-35 lbs. per acre.
4% malathion, 30-35 lbs. per acre. (Suggested on a limited trial basis.)

Spray - 1 lb. 15% parathion wettable powder per 100 gallons of water per acre. Malathion wettable powder or emulsion according to manufacturers directions. (Suggested on a limited trial basis.)

(Tepp gives excellent control and does not leave a poisonous residue but should be used with caution as it may cause burning under some conditions.)

When other insects are present, parathion and malathion may be combined with DDT or DDD. An excellent commercially prepared dust containing 1% parathion plus 3% DDT is now available.

Spider Mites

Aramite is suggested on a limited trial basis.

Dust - 3% Aramite, 30-45 lbs. per acre.

Spray - 15% Aramite wettable powder, 1½ lbs. per 100 gals. water per acre.

(Parathion or malathion could be used but these materials have not given the control desired. Tepp is effective but may cause some burning.)

Plants infested with spider mites have reddish blotches on the tops of the leaves while the undersides of the leaves have a silvery appearance. Mite infestations are particularly bad in dry weather. Tomato fields adjacent to strawberries should be watched closely as the mites often move from the strawberries onto the tomatoes.

N O T E

The use of fungicides for leaf diseases is recommended when late blight is threatening, and for late tomatoes for processing. Most of the insecticides suggested are compatible with these fungicides. DDT and Aramite should not be included in any combination with lime, while calcium arsenate should be used with caution with the organic fungicides. As more new compounds become available the possibility of harmful combinations is increased. To be safe, check the manufacturers directions before using any insecticide-fungicide combination.

TOMATO DISEASES IN EASTERN VIRGINIA

Feb. 1, 1954

T. J. Nugent, Associate Plant Pathologist
Virginia Truck Experiment Station

The chief means by which diseases are introduced into a crop are by the seed, transplants, soil, airborne spores, and/or by insects. To combat those diseases that might be carried by the seed, the use of certified seed and seed treatment are recommended; by transplants - production of clean plants or purchase of certified plants; by the soil - crop rotation, sanitation, soil sterilization or fumigation, and/or resistant varieties; by airborne spores - fungicides and/or resistant varieties; and by insects - insecticides, clean cultivation, isolation, and/or resistant varieties. Emphasis is placed on prevention rather than a cure.

To aid in the fight against diseases of tomatoes, the more important ones are briefly described and the chief control measures are listed.

I. Diseases that affect the entire plant:

Damping-off of seedlings - Stems of affected seedlings develop decay at, or near, ground level. Affected seedlings wilt, usually fall over, and die.

Control by use of seed treatment and following good cultural practices, such as use of well-drained soils, avoiding over crowding and over watering, and providing adequate ventilation in plant bed. Soil sterilization is feasible for small areas.

Bacterial wilt - At first plants appear suffering from drought. The wilting is rapid and complete and affected plants soon die with no apparent yellowing of foliage. Cutting through the stem at ground level discloses a dark water soaked condition.

Avoid low, poorly drained fields. Practice crop rotation. Since the same disease attacks Irish potatoes, eggplants and peppers, avoid following these crops if they have shown this trouble.

Fusarium wilt - The lower leaves first turn yellow and wilt. This yellowing and wilting progresses gradually up the stem or stems until affected stems or entire plant is killed. Often the trouble occurs more rapidly on one side of stem or one side of the plant. The affected leaves detach readily from the stems and at the point of detachment two light-to-dark brown spots (vascular bundles) are visible.

Since the organism can live for long periods in the soil, a long rotation is necessary. The main control, however, lies in the use of resistant varieties. Pritchard, Marglobe, and Rutgers are resistant, but do not have the resistance needed for heavily infested fields. Pan America and Southland - two new varieties that are not as desirable from a horticultural standpoint as some of the commonly grown varieties - are much more wilt resistant and will produce a good crop where others fail.

Southern blight - This disease causes wilting of entire plant but the wilting is more gradual than with bacterial wilt. Also, there is little to no yellowing of foliage as with Fusarium wilt. At the ground line, the main stem is decayed and

Southern blight (con't.) - covered with a whitish fungus growth with small, round, dark colored, seed-like bodies. The disease will also attack fruits on or near the ground.

Purchase clean plants. Practice crop rotation. Since many crops are affected, avoid fields in which a previous crop was affected by this disease. Avoid using contaminated manure or compost.

Bacterial canker - In a primary infection a gradual rolling and wilting of the leaflets occur from the ground upward. The leaflets die, but the leaf petioles remain green and turgid. The stems crack open and the pith can be readily separated from the woody portion of the stem. In secondary spread the disease starts at the top of the plant and works downward. Fruits are sometimes spotted.

Use certified seed or purchase certified plants. In fields where the trouble has occurred, practice a four to five year rotation.

Root knot - Severely affected plants are stunted and sickly in appearance, wilt in dry weather, and may be killed. The roots of such plants have large swellings, or galls.

Use clean uncontaminated soil for plant bed or purchase certified plants. Practice rotation with small grains or other nematode resistant crops. Under some conditions it is feasible to fumigate the soil with one of the various soil fumigants

II. Diseases which chiefly affect the foliage:

Septoria leaf spot - This disease produces small spots on the leaves and stems. The spots have grayish centers with numerous black specks. When severely attacked, the leaves turn yellow and drop off.

Rotation, clean cultivation, and the use of fungicides are the main control measures.

Early blight - This disease produces dark, circular spots with concentric markings (target spot effect) on the leaves and dark sunken lesions on the stem near the base of the plant (collar-rot). In severe attacks, defoliation results.

Purchase of clean plants, rotation and use of fungicides are chief means of control.

Gray leaf spot - This disease produces numerous small dark brown spots, the centers of which have a glazed grayish-brown appearance. Leaves become yellow, wither, and drop, starting with the lower leaves first and progressing upwards until only tufts of new leaves at the top of the stems remain.

Control is the same as for early blight.

Tomato mosaic - Affected leaves are mottled with light and dark green areas, often distorted or malformed. This disease is caused by a virus. When tomato mosaic infected plants are also infected with the latent virus in potatoes, a disease known

Tomato mosaic (con't.) - as double-virus streak results. The upper foliage is spotted, the stems show dark brown streaks, and the fruit is often misshapen with dark brown patches. This disease has been observed in fields where volunteer potatoes were permitted to grow.

Control is chiefly by sanitation (avoid using tobacco while handling transplants), clean cultivation and insect control.

Leaf roll - Older leaves roll upward and inward at margins. In severe cases all the leaves may be affected. Foliage does not turn yellow, but becomes firm and leathery to the touch. The disease is physiological and since the water relationship is a factor, there is little that can be done. Severe pruning of staked tomatoes will also cause the trouble.

III. Diseases that attack both foliage and fruit:

Bacterial spot - On the leaves small, watersoaked, translucent spots develop which later enlarge, turn black and are slightly sunken on the underneath side of leaves. Severely affected leaves turn yellow and drop. On the fruit the lesions are first small, black, raised spots which later become sunken in the center and develop irregularly lobed margins.

Control consists of seed treatment or the purchase of clean plants.

Late blight - Greenish-black, watersoaked patches develop on leaves. Under cool moist conditions spots enlarge rapidly. Elongated black cankers may develop on the stems and leaf petioles. Spots, dark green to brown in color with a firm rough surface may appear on the fruits.

Clean plants and the use of fungicides are the chief control measures.

IV. Diseases that affect the fruit only:

Anthracnose - Circular sunken spots of various sizes develop on the fruit. The centers of the spots are tan in color with small specks or fruiting bodies.

Control consists of rotations and use of fungicides.

Soil rot - Spots develop where fruits contact the soil and are much larger with more pronounced concentric rings than with Anthracnose. The center of spots often break open.

Control - avoid low poorly drained fields. In small plantings stake or mulch tomatoes.

Blossom end rot - Dark sunken spots appear at blossom end of fruits. Unless invaded by decay producing organisms, the rot is firm and leathery. The spots vary in size, sometimes affecting half the fruit. (Physiological).

Usually worst on first fruits. Avoid excessive application of nitrogen. Any practice that helps maintain an even supply of moisture is beneficial.

Sun Scald

Use of varieties that have heavy foliage and keeping of plants in good growing condition so as to provide sufficient shade for fruit.

Miscellaneous Truck Crops Project
41 Counties Visited

Fertilizing
Virginia Vegetables

V. P. I. Agricultural Extension Service
Blacksburg, Virginia

in collaboration with

Virginia Truck Experiment Station
Norfolk, Virginia

Bulletin 212 **March 1954**

Virginia (State) AGRICULTURAL EXTENSION SERVICE

7-a Vegetable PLAN OF WORK

for

Calendar Year 1954

Major phases of project or subdivisions of project covered	Name of Workers	Percentage of time devoted to entire project by each worker
7-a Vegetable Crops	L. C. Beamer	100
	A. V. Watts	75
	F. H. Scott	100
	G. R. Williams	100

SUBDIVISIONS

1. Home Gardens
2. Irish Potatoes
3. Sweet Potatoes
4. Tomatoes
5. Miscellaneous Truck Crops

Date submitted: 1 January, 1954. Signed: George R. Williams
Project Leader

Date approved: MAR 9 1954, 1954. Signed: C. B. Haughton
Acting State Director of Extension

Date approved: APR 7 1954, 1954. Signed: Clee Ferguson
Director of Extension U. S. Department of Agriculture

I. ANALYSIS OF SITUATION

The personnel conducting this project are as follows:

L. C. Beamer,	Associate Extension Horticulturist Employed full time
A. V. Watts,	Associate Extension Horticulturist Employed three quarter time Vegetable Extension and one quarter Virginia Truck Experiment Station.
F. H. Scott,	Assistant Extension Horticulturist Employed full time
G. R. Williams,	Associate Extension Horticulturist Employed full time

The vegetable project is divided into five major phases which are home gardens, Irish potatoes, sweet potatoes, tomatoes, and miscellaneous truck crops. Each vegetable Extension Horticulturist works in all five phases. In addition to the crops just mentioned, there are many market gardens near the larger cities in Virginia. Among commercial truck crops in Virginia listed in the order of their importance according to acreage are potatoes, sweet potatoes, tomatoes, snap beans, cucumbers, sweet corn, lima beans, cabbage, spinach, green peppers, kale, green peas, watermelons, broccoli and onions.

There are no accurate records on the number of home gardens in Virginia. However, several estimates have been made which indicates that there are approximately 175,000 in the state. It is also difficult to estimate the value of these gardens from a money standpoint, because there is so much aid to the family in their health from a good garden. Estimates were made of an average size garden with average yields and the value obtained was considerably over $200.00 per garden.

Project work needed is to encourage year-round gardens, with a good balance of the different kinds of vegetables. Also the need of the home garden should be emphasized in some cases. Variety trials in larger numbers are needed so that the specialists will be in a position to recommend good varieties for Virginia.

The home garden project will continue to be one of major emphasis in 1954. The vegetable gardening letter will be continued to all counties requesting them. This has been a very popular item with the county worker and it is expected to continue this year. Leader Training Meetings are to be continued; however, the number of meetings per county will be reduced to one, so that more counties can be reached.

The Irish potato is still the most important vegetable crop in Virginia from an acreage standpoint. The long time trend in acreage of this crop has been downward. The acreage planted in 1953 was 26,400 which is a slight increase over 1952 which was 24,000. This is an annual variation rather than a trend of this crop in the state, however, The average acreage of the three years of 1949, 1950, 1951 was 28,300 acres. The estimated average yield of potatoes in 1953 was 235 bushels per acre which was an increase of about 100 bushels per acre compared to 1952. The 1952 year was a very low year for production because of bad weather conditions.

One of the greatest needs in Irish potatoes for Virginia is improved marketing. Several good growers and shippers are doing an improved job by using washing machines, and pre-packaging in consumer size packages. The outlook and production meetings will be held in the important counties again in January 1954. Experimental work is needed to develop an early variety of potato which has a smooth skin. This would help the Irish potato situation in Virginia a great deal by replacing the Irish Cobbler which has deep eyes. One field demonstration is planned during 1954. This will include several varieties with different fertilizer applications. A field day will be held with local growers invited to help teach the proper methods of growing the crop. The main objective of this project is to increase the yields per acre of high quality potatoes. Growers must increase yields in future years, if present prices continue, if a profit from the crop is to be expected.

The sweet potato ranks second in acreage in commercial vegetable crops in Virginia. The acreage has increased from 17,000 in 1952 to 19,000 in 1953. The yield was 150 bushels per acre which is 20 bushels greater than last year and 30 bushels greater than the last 10 year acreage. Prices have been down somewhat, but they are still very favorable when compared to other vegetable crops. Several sweet potato bedding demonstrations will be held in 1954. Also, hill selections of seed stock will be stressed to increase yields of high quality potatoes. Importance will be placed on growing and storing the storage type sweet potatoes, because the most satisfactory prices are obtained in the winter and spring months. Total production was 2,850,000 bushels in 1953. Prices were unsatisfactory in the early part of the season because the production exceeded the storage facilities. This caused a surplus on the market and depressed the price. Project work needed is encouraged more growers to use hill selection to maintain production and trueness to type.

The largest part of the tomato crop is grown for processing. The green wrap market, however, was very good in the early part of the season. The total acreage in 1953 was 18,300 compared to 22,000 in 1952. All of the decrease in acreage was in canning tomatoes. The fresh market crop actually increased in 1953 over 1952. The decline in the canning crop has been due to low prices and low yields per acre. Several tomato meetings will be held in the early part of 1954 to carry information to the growers on the best cultural practices and recommended varieties. Efforts are being made in cooperation with the State Department of Agriculture to get more of the canneries to buying tomatoes on a grade basis. Several benefits would be realized by both the grower and the processor. This work will be continued in 1954. A 4-H Club Tomato Project will be offered to all counties in 1954. Arrangements have been made with the Tidewater Canners Association of Kinsale, Virginia, to be the sponsors of this project. The objective of this project is to teach, through the project, the proper methods of culture, insect and disease control to the 4-H Club Members, which will in turn teach the parents.

Miscellaneous truck crops in Virginia are those in addition to Irish potatoes, sweet potatoes, and tomatoes, some of the more important of which are snap beans, cucumbers, Lima beans, cabbage, spinach, green peppers, green peas, watermelons, sweet corn, onions, and kale. Approximately 30,000 acres in Virginia are devoted to the crops just listed with the majority being grown for processing. Also, under this project is the work of the market gardeners whose production is not included in that of the commercial growers. Generally for these crops, better cultural practices and pest control are needed along with varieties suitable to the climate, soil, and markets. Project work needed is demonstrations of new varieties, variety trials, seed source trials, and where possible, irrigation of vegetable crops.

II. MAJOR PROBLEMS

A. Home Gardens
   1. Diversification of kinds of vegetables so as to meet the diet needs of the family.
   2. Year-round gardening.
   3. Increase in the number of gardens where practical.
   4. Home storage.

B. Irish Potatoes
   1. Improved marketing practices.
   2. Planting suitable varieties.
   3. Irrigation where practical.
   4. Better cultural practices.
   5. Insect and disease control.
   6. Use of good varieties.

C. Sweet Potatoes
1. Careful hill selection to maintain trueness to type.
2. Efficient and better cultural practices.
3. Disease control by selection and other control measures.
4. Improved and increased storage facilities.
5. Use of varieties suitable for storage.

D. Tomatoes
1. Increased yield per acre.
   a. Improved cultural practices.
   b. Improved fertilizing.
   c. Disease control.
   d. Disease resistant varieties.

E. Miscellaneous Truck Crops
1. Improved cultural practices.
2. Irrigation.
3. Suitable varieties.
4. Improved marketing practices.

III. NUMERICAL GOALS FOR 1954

A. Home Gardens

Activities	1954	1953
Days in the field	230	216.5
Number of counties visited	78	74
Method demonstrations	60	66
Meetings	85	55
4-H Club Meetings	10	14
4-H Club Demonstrations	35	79
Leader Training Meetings	25	32
Information circulars	3	1
Radio talks	30	40
Press articles	40	50
T. V. Shows	3	2
Monthly Garden Letter	10	11

B. Irish Potatoes

Days in the field	45	44.5
Number of counties visited	16	9
Radio talks	4	3
Press articles	6	2
Demonstrations	20	28

C. Sweet Potatoes	1954	1953
Days in the field	60	82.5
Number of Counties visited	22	22
Meetings	25	27
Demonstrations	11	15
Radio talks	6	5
Press articles	6	4
Bulletins prepared	1	0

D. Tomatoes		
Days in the field	50	49.5
Number of counties visited	25	19
Meetings	50	53
Radio talks	6	5
Press articles	4	1
T. V. Programs	2	2
Bulletins Prepared	1	0

E. Miscellaneous Truck Crops		
Days in the field	70	56
Number of counties visited	35	25
Meetings	26	18
Radio talks	6	4
Press articles	3	0
T. V. Program	1	1

IV. METHODS AND PROCEDURES

A. Methods

All approved Extension methods of teaching will be used, such as meetings, method and result demonstrations, competitions, tours, visual aids, circular letters, individual correspondence, press articles, radio talks and television programs.

Demonstrations will be used wherever feasible. The specialists believe that this is one of the best Extension methods of teaching, and therefore, an effort will be made to include some demonstrations in all the project phases of vegetable Extension.

The 4-H Club Garden Contest will be continued. In this contest, the home or county agent obtains as many 4-H Club Members as possible to participate. The specialists score the gardens twice during the year on the basis of cultural practices, pest control, and proper diversification of root, leaf, and fruit vegetables. At the end of the season, prizes are given by interested organizations to the 4-H Club members in each county having the highest scores, and district prizes are also given. This project has caused a great deal of interest not only in 4-H Club members, but in adults also.

The 4-H Club garden members may also enter the program offered by the N. J. V. G. A. in 1953. This program was started in 1952, and the many educational benefits and worthy awards should make it a very popular project with young people.

A 4-H Club Tomato project will be offered for the first time in 1954. The objective of this project is to increase the yields and quality of tomatoes grown in Virginia.

Leader training meetings will again be emphasized this year, as it is a means of reaching many individuals through leaders in home demonstration clubs. Only one meeting is planned for each county in order that more counties may participate in this program.

B. Procedures

1. County agent's duties:
   a. To determine, with the aid of vegetable specialists, the need for project work.
   b. To obtain acceptance of subject matter furnished by the specialists.
   c. To plan demonstrations with the aid of specialists and to locate demonstrators.
   d. To schedule meetings where necessary and to give publicity to the meetings.
   e. To conduct publicity work within the county with the aid of the specialists.
   f. To follow up carefully all projects that have been started in the county.
   g. To secure cooperation of all agencies within the county so as to have a unified county program.

2. Specialist's duties:
   a. To inform agents of the proposed projects.
   b. To assist agents in determining the need of vegetable work in their counties.
   c. To be responsible for subject matter pertaining to the vegetable project.
   d. To plan definite demonstrations with the assistance of the agent.
   e. To address meetings wherever requested on matters pertaining to the vegetable project.
   f. To assist agents in county publicity.
   g. To assist agents in methods of teaching in the vegetable project.

V. COOPERATION

A. The specialists will cooperate with various agencies and organizations including the USDA, the State Department of Agriculture, County Boards of Agriculture, other Extension Departments, Vocation Agriculture teachers, vegetable growers' associations, garden clubs, etc. The purpose of this cooperation is to accomplish the goals of the Vegetable Project through a coordinated effort.

1. County Boards of Agriculture. The County Boards of Agriculture offer an excellent means of coordinating the vegetable project within the county. The Board is composed of professional workers and others and it gives a rather detailed cross-section of the county. Through efforts with this Board better coordination can be obtained.

2. Other Extension Departments. The specialists will cooperate with all Extension Departments when needed and specifically plans to work with the following:

   a. Agriculture Economics Department in vegetable statistics including cost account studies.
   b. Home Economics Department in the Home Gardening project.
   c. Plant Pathology and Entomology Department in pest control measures in Home Garden and Truck Crop projects.
   d. Virginia Seed Service Commission in the improvement of seeds and plants.
   e. Agronomy Department in soil, fertilizer, and lime recommendations.
   f. 4-H Club Department in 4-H Club meetings and demonstrations in gardening and truck crop projects.

3. Other Professional workers. Will continue to cooperate fully with professional workers in other organizations as in the past.

4. Truck Crop and Market Garden Organizations. Will work with and through these organizations which has proved to be of mutual benefit.

VI. PUBLICATIONS AND OTHER TEACHING AIDS

A. Publications to be used in 1954

Vegetable Growers' News	36,000
Circular #475 (revised) Vegetable Garden Suggestions for Virginia Farmers	8,000
Circular #471 Growing and Marketing Irish Potatoes in Virginia	500
Bulletin #183 Fertilization Recommendations for Virginia - Revised January 1953	3,000
USDA FB #1939 Home Storage of Vegetables and Fruits	1,500
USDA MP # 605 Vegetable Gardener's Handbook on Insects and Diseases	1,500
USDA FB # 9 Suburban and Farm Vegetable Gardens	2,000
USDA FB # 2045 Commercial Production of Tomatoes	500
Mimeographed - Asparagus Culture for the Home Garden	1,000
Mimeographed - Onion Culture for the Home Garden	1,000
Mimeographed - Garden Leader Trainer Topics	1,200
Mimeographed - Small Fruits in the Home Garden	1,500
Mimeographed - Timely Control of Garden Pests	2,000
Mimeographed - Spraying and Dusting Tomatoes and Potatoes for Disease Control	3,000
Mimeographed - Plant, Grow, Freeze, Fruits and Vegetables	1,500
Other publications as required	

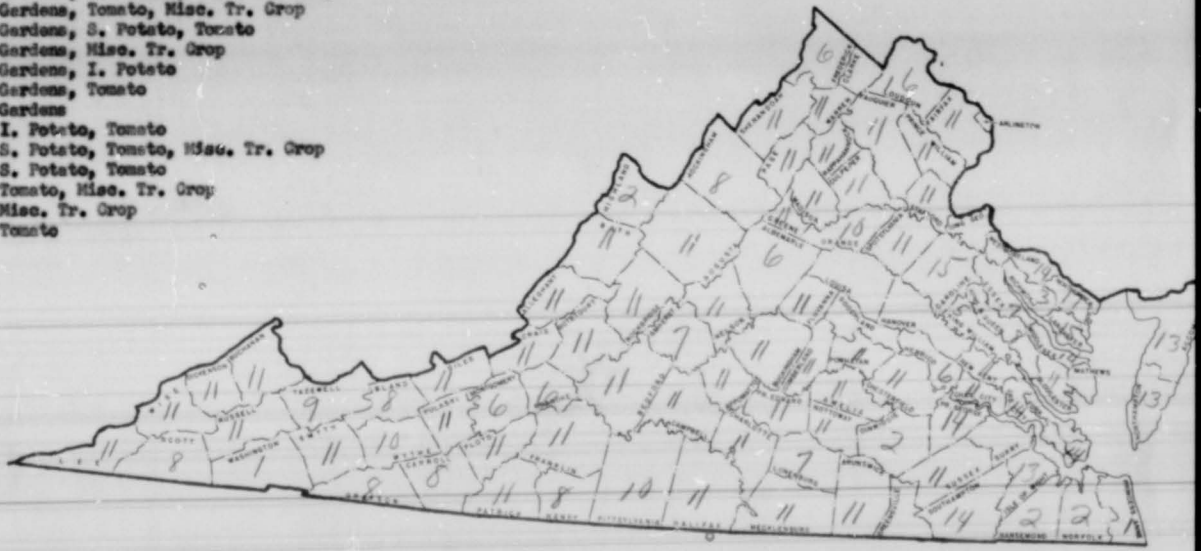
B. Visual aid will be used whenever possible. Work is now being done in preparing slides of conditions in Virginia in vegetable production for use in meetings of vegetable gardeners and truck crop growers. These slides will be about varieties, cultural practices, fertilizing, and pest control.

VII. CALENDAR OF WORK

Projects	No. of days	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Home Gardens	230	x	x	x	x	x	x	x	x	x	x	x	x
Irish Potatoes	45		x	x	x	x	x	x	x	x	x		
Sweet Potatoes	60			x	x	x				x	x	x	
Tomatoes	50	x	x	x	x	x	x	x	x	x			
Miscellaneous Truck Crops	70		x	x	x	x	x	x	x	x			
Institutional Work	10		x	x	x	x	x	x			x		
Publications, Publicity and Correspondence, etc.	300	x	x	x	x	x	x	x	x	x	x	x	x
Extension Meetings, etc.	55	x	x	x		x	x		x	x	x	x	

Distribution of Project Phases

1. Gardens, I. Potato, S. Potato, Tomato, Misc. Tr. Crop
2. Gardens, I. Potato, S. Potato, Misc. Tr. Crop
3. Gardens, S. Potato, Tomato, Misc. Tr. Crop
4. Gardens, I. Potato, Misc. Tr. Crop
5. Gardens, S. Potato, Misc. Tr. Crop
6. Gardens, Tomato, Misc. Tr. Crop
7. Gardens, S. Potato, Tomato
8. Gardens, Misc. Tr. Crop
9. Gardens, I. Potato
10. Gardens, Tomato
11. Gardens
12. I. Potato, Tomato
13. S. Potato, Tomato, Misc. Tr. Crop
14. S. Potato, Tomato
15. Tomato, Misc. Tr. Crop
16. Misc. Tr. Crop
17. Tomato



ANNUAL REPORT

1954

Project No. 7b

Extension Division

By

A. G. Smith, Jr.

Horticultural Department

Virginia Polytechnic Institute

Blacksburg, Virginia

INDEX

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS
VIRGINIA POLYTECHNIC INSTITUTE AND THE UNITED STATES DEPARTMENT OF AGRICULTURE COOPERATING
STATE OF VIRGINIA

December 1, 1954

Mr. W. H. Daughtrey, Associate Director
Extension Service
Blacksburg, Virginia

Dear Mr. Daughtrey:

I am submitting herewith the annual report of work accomplished in the project of Landscape Design and Ornamental Horticulture for the period beginning December 1, 1953 and ending November 30, 1954.

PERSONNEL

The personnel and time for the period of this report are as follows:

W. P. Judkins, Head of Department of Horticulture - 1/12 time

A. G. Smith, Jr. - 1/4 time

A. S. Beecher (away for graduate work December 1, 1953 to February 1, 1954) - 3/4 time

This report includes the several items listed in the preceding index.

IMPROVEMENT OF PUBLIC AND PRIVATE GROUNDS

The requests for help from home owners for assistance in ornamental horticulture continues to grow. The increased interest can be attributed to these factors:

1. Increasing population in Virginia
2. Building boom
3. Growth of the garden club movement
4. Growth of gardening as a hobby
5. Growth of home demonstration clubs
6. Continued growth of the Extension program
7. Increased publicity to ornamental horticulture through radio, newspapers, and television
8. Community improvement contests

During the past year the specialists have used many different types of teaching methods to meet this demand for assistance. The various methods used are as follows:

1. Demonstrations
2. Leader training
3. Agent training by specialist
4. Mass media - radio, newspapers, garden magazines, exhibits, circulars, and bulletins
5. Individual visits
6. Short courses
7. Community improvement contests

8. Serving as co-sponsors for the Virginia Federation of Home Demonstration Clubs in their Home and Community Beautification Goal
9. Correspondence
10. Tours
11. Visual Aids
12. Lectures
13. Improvement of public buildings and community projects
14. 4-H Club activities

DEMONSTRATIONS

Three hundred and seventeen homes were visited during the year by the specialists to advise on various problems dealing with the landscape development and maintenance of the home grounds. Many of these homes can be utilized as future demonstrations, provided the Extension agents follow through with the project. The story that follows tells how Mecklenburg set up four demonstration homes that were carried over a two-year period.

MECKLENBURG LANDSCAPE DEMONSTRATION HOMES

I. Problem

In 1952 the Mecklenburg Farm Agent, Mr. Lewis Copley, and the Home Agent, Mrs. Mattie Thompson, requested that four landscape demonstration homes be set up in their county because the average farm homes were poorly landscaped. It was the feeling of the agents that a great number of county folks needed a practical demonstration on how to landscape their homes and asked that special emphasis be placed on setting up these demonstrations on the following:

1. Organization of the various areas around a home into an overall landscape plan
2. Driveways and parking areas
3. Outdoor living areas
4. Selection of plant material - shade trees, foundation planting
5. Lawn culture

II. Procedure

Four homes in various sections of the county were selected as demonstration homes. The homes selected were as follows:

Mr. and Mrs. E. L. Watkins - established farm home

Mr. and Mrs. Claude Crews - new farm home

Mr. J. W. Propst and Mr. and Mrs. Noel Propst - established farm home

Mr. and Mrs. Sherwood Reams - new non-farm home

The homes selected represented landscape problems that were typical of many homes in the county and each home owner agreed to serve as a demonstrator.

A community meeting was held in the yard of each home and the landscape specialist was present to conduct the demonstration. On a large piece of cardboard a map of the home grounds was drawn and then the specialist before the assembled group developed the landscape plan. Attention first was directed towards getting the home owners to think in terms of needed areas such as Public, Private, Laundry, Vegetable, and Children's Play Areas. Next the organization of these areas into a unified plan was outlined. At this point the driveway, guest parking areas, and walks were incorporated into the plan. After the design plan was prepared the planting details were worked out as well as instructions for proper drainage, soil improvement, and lawn culture.

At the finish of the demonstration each demonstrator had a completed plan to follow and also was supplied with circulars and

bulletins on landscaping to supplement the material presented during the demonstration.

Each home owner was requested to show his landscape plan at the next home demonstration club meeting so that the club members not at the demonstration could benefit from a summary of the landscape specialist's recommendations.

One year later (1953) the specialist visited each project again and noted the progress and made further recommendations. Colored pictures were taken to record the progress. The pictures were used during the fall of 1953 along with some before pictures at the County Achievement Day program.

On November 2, 1954, an Achievement Day tour of these homes was made. At each home the landscape specialist pointed out the accomplishments and discussed some of the plans for future accomplishments. A program listing the accomplishments was prepared and distributed to each person attending the tour.

After a picnic lunch the specialist showed colored slides on landscaping and answered individual questions on landscaping.

III. Accomplishments

The following accomplishments were reported by each demonstrator:

Accomplishments:

1. Driveway relocated
2. Walk relocated and laid of brick
3. Parking area built

4. Entrance improved
5. Improved mail box with name
6. Lamp post set with lamp
7. New shrubbery planted

Plans for Future Accomplishments:

1. Relocate garage
2. Build outdoor living area
3. Plant shade trees

Mr. and Mrs. Claude Crews

Accomplishments:

1. Trees thinned
2. Lawn graded and planted
3. Driveway located
4. Parking area located
5. Foundation planting

Plans for Future Accomplishments:

1. Grade and reseed part of lawn
2. Build garage
3. Replace present walk with brick walk
4. Clean up the woods in the back and to the side of house
5. Level driveway and add more gravel
6. Put white fence down left side of yard to separate yard from pasture - the land to the left will be seeded in permanent pasture
7. Build outdoor fireplace and eating area

8. Fix permanent clothes line

9. Fix place for flower garden

10. Plant roses along fence

11. Fix attractive mail box

Mr. J. W. Propst and Mr. and Mrs. Noel Propst

Accomplishments:

1. Terrace laid

2. Parking area located and built

3. Walkways laid

4. Removed four trees

5. Filled in yard in low places

6. Planted shrubs to screen unattractive buildings

7. Underpinned porch

Plans for future accomplishments:

1. Improve drainage

2. Replace shrubs which died

3. Plant shade trees

4. Improve outbuildings by repair and paint

5. Relocate other outbuildings

6. Improve mail box

7. Build outdoor fireplace

8. Light walkway with lamp on post

Mr. and Mrs. Sherwood Reams

Accomplishments:

1. Lawn graded and seeded

2. Driveway located

3. Parking area located and built

4. Foundation plantings

Plans for Future Accomplishments:

1. Plant shade trees

2. Plant more shrubs

3. Build garage

No attempt has been made as yet to determine what other landscape accomplishments have resulted throughout the county as a result of this two-year landscape program. During the coming year it is the hope of the landscape specialist that the County and Home Agents will make a survey to ascertain how many individuals have been influenced by this program and have made some landscape improvements.

During the two-year period approximately 500 people have had some contact with the program.

IV. Conclusions and Valuation of the Results Accomplished

The success of this program in Mecklenburg County can be partly contributed to the following:

1. The Extension agents were careful to select demonstrators that they were reasonably sure would be able to follow through and make the landscape recommendations prepared.
2. Sufficient time was allowed the specialist at each demonstration to do a thorough job without having the feeling of being rushed.
3. The Farm and Home Agents followed through on the project by making follow-up visits to check on the

progress. Before and after pictures were shown throughout the county. A tour of these homes was made where the public was invited to see the progress that had been made.

4. The Extension agents had a definite plan as to how they would use these demonstration homes when the specialist was invited to set up these landscape demonstrations. Too many home visits are made by the specialists each year at the request of the agents that are never followed up by the county agents and used as public demonstrations.
5. On each visit of the specialist to these homes the public was invited to be present to hear the recommendations.
6. Both the Farm Agent and Home Agent took an active part in the program.
7. Good coverage of the program was carried throughout the county by the local newspapers.
8. A special effort to interest both the husbands and the wives of the demonstrators was made and good family cooperation was demonstrated by these families.

MECKLENBURG COUNTY DEMONSTRATION HOME,
BEFORE AND AFTER.

GROUP MEETING AT DEMONSTRATION HOME.

OUTDOOR LIVING AREA, DEMONSTRATION HOME.

LEADER TRAINING

Twenty-three leader training meetings were held in 19 counties with a total attendance of 431. The topics presented at these meetings were as follows:

Bath	New Ideas for Home Gardeners
Caroline	Yard Improvement
Charles City	Yard Improvement
Fluvanna	New Ideas for Home Gardeners
Greene	Care and Pruning Shrubs and Small Fruit
Henry	County Program
Highland	New Ideas for Home Gardeners
Lancaster	Landscaping the Home Grounds
Lunenburg	Outdoor Living Area
	Planting of the Home Grounds
Nansemond	Care and Culture of Bulbs
Orange	New Ideas for Home Gardeners
Patrick	Community Improvement
Prince George	Year-Round Border
Shenandoah	Planning and Care of the Home Grounds
Stafford	Pruning
Warren	Making an Attractive Entrance

AGENT TRAINING BY SPECIALISTS

The specialists had the opportunity during the Extension In-Service Training Short Course held on the campus of V. P. I. to train 70 agents. Each agent attended two sessions on Ornamental Horticulture.

It is the opinion of the ornamental specialists that these short courses for the agents are especially important because so many of the agents have had no formal training in Ornamental Horticulture. The time allotted was not sufficient to fully train these agents and additional training sessions are needed.

MASS MEDIA

I. Radio

The specialists prepared 21 radio programs. Some of these programs were prepared on tape and sent to many radio stations throughout Virginia. All of these programs dealt with some phase of home landscaping. The specialists assisted in several radio programs called the Garden Question Box where answers to current garden questions were answered.

II. News Articles

Approximately 32 articles were prepared for the newspapers and garden publications.

III. Exhibits

Exhibits on Ornamental Horticulture were prepared for the public exhibit held in connection with the Virginia

BAPTIST CHURCH NEAR WARSAW SHOWING GROUNDS BEFORE LANDSCAPING 1953.

COUNTY AGENTS AND HOME DEMONSTRATION AGENTS ATTENDING LECTURES AND DEMONSTRATIONS IN ORNAMENTAL HORTICULTURE.

Nurserymen's Association Convention at Richmond, The Convention of the Virginia Federation of Garden Clubs, Roanoke, The Better Homes and Garden Exhibit, Richmond, and the Garden Lovers' Short Course, Blacksburg.

At several of these exhibits the specialists were on hand to answer questions concerning Ornamental Horticulture. Approximately 20,000 people passed by these exhibits.

IV. Bulletins, Circulars, and Mimeographed Material

Printed materials were used extensively to assist home owners with the development and maintenance of the home grounds. Fifteen new publications were prepared or revised during the last year.

INDIVIDUAL VISITS

Three hundred and seventeen visits were made, chiefly with the County Agent and Home Agent, to individual homes to advise on some phase of Ornamental Horticulture. The majority of these visits were to new homes. At many of these homes a field sketch was prepared. On this sketch the location of the various areas were indicated and suggestions for walks and driveways were outlined. Planting suggestions and information on lawn culture were also given.

Extension agents were encouraged whenever possible to invite the people of the community to these home visits by the specialists so they could benefit from the discussions and also

have the opportunity to ask questions concerning their individual problems.

These individual visits also served as a training program for the Extension agents.

SHORT COURSES

The short courses for the Virginia Nurserymen and the Garden Lovers which were held on the campus of V.P.I. placed special emphasis on problems dealing with the development and maintenance of the home grounds. The primary purpose of the Nurserymen's Short Course is to train the nurserymen so that they will be better equipped to help home owners with their landscape problems.

COMMUNITY IMPROVEMENT CONTESTS

The increased popularity of the community improvement contests has stimulated interest in home grounds beautification by those interested in the contests and the requests for specialists' help have been heavy. During the year the specialists have helped with the landscape planning of several community projects. Individual talks have also been made to some of the community groups.

Community groups that have been helped:

Spotsylvania	Partlow Community Club
Lancaster	Lancaster Community Improvement Club

Craig	Maywood Club
Botetourt	Trinity Valley
Franklin	Naff Community Club
	Gladehill Community Club
Montgomery	Belmont Community Club
	Prices Fork Community Club
	Mt. Tabor Community Club
Patrick	Bell Spur Community

HOME AND COMMUNITY BEAUTIFICATION GOAL

The Virginia Federation of Home Demonstration Clubs again sponsored the Home and Community Beautification Goal and the ornamental specialists were asked to serve as co-sponsors of this program.

The purpose of this program is to make Virginia homes more attractive and useful and to promote pride in our communities.

Special emphasis by each home demonstration club was placed on the following:

1. Have a goal leader develop this goal to meet the needs of the individual and the community.
2. Urge community mail box improvement program and the erection of farm signs.
3. Stress good planning (immediate and long term).
4. Encourage conservation of state flower (Dogwood), other native ornamental flowers, shrubs, trees, and wildlife.

5. Cooperate with Roadside Development Projects to protect the natural beauty of Virginia.
6. Work with 4-H groups on homes, community projects, and related tours to local nurseries, parks, etc.
7. Plan individual and community clean-up campaings.
8. Develop a good publicity program for this goal.

Individual club members were urged to do the following:

1. Clean up home grounds, make necessary repairs on buildings, walks, driveways, and fences.
2. Make a survey of the home grounds and a long-term plan for improving them.
3. Study and apply available information on the principles of landscaping, plant materials especially adaptable for Virginia soils, and the care and maintenance of them.
4. Plant for food, beauty, and pleasure.
5. Share your knowledge with non-members.
6. Support club and community improvement projects.

The specialists met with many of the 26 counties that carried this goal and conducted leader training meetings, pruning demonstrations, and held public landscape meetings. Individual homes and public buildings were visited and steps for landscaping these projects were outlined. Each county taking this goal was supplied with bulletins and mimeograph material on Ornamental Horticulture.

The final report on the accomplishments of this program for the year is not as yet assembled, but an idea of the effectiveness of this program can be obtained from a portion of the report of the chairman of the Home and Community Beautification Goal, Mrs. J. Blaine Owin, which was made in January of 1954. The report covers the activities for 1953 and shows the type of accomplishments that resulted from this program.

Her report in part is as follows:

The 28 counties reporting have 402 clubs with 9,715 members.

Only 12 counties had county-wide Clean-up Campaigns - less than 50%. However, it is encouraging that in these 12 counties the H. D. clubs had the assistance of other groups such as Highway Department, Town Council, Garden Clubs, Church Groups, Women's Clubs, and Suritan Clubs. Am glad to see more and more coordination of effort in community activities.

One hundred and ninety-one clubs had community projects. So that you may know the variety of projects and to enable you to judge the value of the Goal, I submit the following.

16 Community House Grounds improved

17 Community Buildings completed or started

1 Community Room established and furnished

53 Churches and grounds improved (2 counties did not give the number improved)

8 Parsonage gounds improved

15 Cemeteries improved

10 Counties working to eliminate roadside dumping

1 County contributed to trash collection

2 Counties working for garbage disposal

1 County held a meeting on the sewerage disposal problem

7 Clubs working for highway improvement

1 Club improved a Wayside Area

14 Clubs emphasized yard and entrance improvement

24 Clubs emphasized mail box improvement (Franklin county put up 700 mail box name plates)

Grounds around 4 public buildings improved

1 County improved rest rooms in one Legion Hall

A community swimming pool was built

6 Picnic areas developed

1 Playground established

1 County promoting telephone service

1 County conducted Christmas Door Decoration Contest

10 Public school grounds improved

1 Sick room equipped in public school

Six thousand, one hundred, and twenty-seven home demonstration members in the 28 counties have reported improvements on their home grounds. Twenty-eight homes completed bathrooms in 1953 and 19 installed central-heating systems.

I feel sure these splendid results have been stimulated by good publicity through television, radio, talks, newspapers, and letters, garden tours in 10 counties attended by 1,088 members, shrub and plant exchanges conducted in 232 clubs, county-wide demonstrations in 12 counties attended by 1,012 people, and perhaps most of all by a growing understanding of the pleasure and saving of effort and expense that comes with better planned home grounds and communities.

I feel this report would not be complete without expressing my very sincere appreciation for the help and inspiration given me by the two Federation presidents I have served under (Mrs. Myers and Mrs. Dickinson), Miss Wallace, and my most helpful sponsor for four years, Mr. Albert S. Beecher.

CORRESPONDENCE

During the year a considerable amount of time was spent in answering letters to help people find a solution to some of their problems concerning landscaping, pruning, selection of plant material, insect troubles, diseases, soil improvement, lawns, culture of plant material, plant identification, etc. Many of these letters required considerable research before they could be answered. Continued preparation of one-page circulars on the subjects most commonly inquired about is planned to help eliminate some of the letter writing.

VISUAL AIDS

Greater use was made of colored slides during the year by the farm and home agents. Twenty-four sets of slides were loaned to the agents. In many cases these slides were used by the agents for a full month as they were shown at individual club meetings. To assist the agents, a Slide Syllabus was prepared for each slide set. It is anticipated that a greater use will be made of these slide sets in the future as more county Extension offices are being equipped with projectors.

Several hundred new slides were added during the course of the year.

In 1953, a flannelgraph pattern on landscaping was sent to each home agent. Several of the agents made use of this pattern and gave flannelgraph demonstrations on landscaping during the year.

A syllabus for the use of the flannelgraph was prepared for the agents to guide them in giving the demonstrations.

The specialists made use of this flannelgraph at the Virginia Federation of Garden Clubs' Flower Show Judging School, In-Service Training School for agents, 4-H Short Course, Virginia Nurserymen's Short Course, leader training meetings, and garden club groups.

Plans are under way to further develop this landscape

flannelgrpah so that it can be used on television programs. A flannelgraph kit and syllabus will be prepared and made available to agents looking for television program material.

The total number of people reached during the year by these forms of visual aids runs well up into the thousands. In one county alone, over 400 home demonstration club members saw the slide sets as they were shown at each club meeting.

LECTURES AND TALKS

Individual lectures and talks were given by the specialists before 85 organizations as listed below. The total attendance at these meetings was 3,960.

County	Group
Albemarle	Dolly Madison Garden Club
Alleghany	Rainbo Garden Club, Covington
	Clifton Forge Garden Club
Amelia	Amelia Garden Club
Augusta	County-wide meeting
	Nolan Heights Garden Club
Brunswick	County-wide meeting
Franklin	Naff Community Club
	Gladehall Community Club
Gloucester	Gloucester Women's Club
	County-wide meeting
Goochland	Community meeting, Saunders Farm

County	Group
Grayson	Galax Garden Club
Halifax	Four combined groups
Henrico	Thomas Jefferson Garden Club, Richmond
	Forest Hills Park Garden Club
Henry	County committee
James City	Special Interest Group
King William	Port Richmond P. T. A.
Lancaster	Lancaster Community Improvement Club
Madison	Madison Garden Club
Mathews	County garden club
	Mathews Garden Club
Mecklenburg	Achievement Day Program
Montgomery	McBride Village (2 meetings)
	Mt. Tabor Community Club
	Belmont Community Club
	Garden Lovers' Short Course
	Virginia Federation of Garden Clubs
	Radford Garden Club
	Christiansburg Garden Club
	Landscape Superintendents, Virginia State Highway Dept.

County	Group
Montgomery	Short Course for Nurserymen
	Institute of Rural Affairs (3 groups)
	Roanoke Vegetable Growers
	Radford Community meeting
Northampton and Accomac	Combined garden clubs
Patrick	Bell Spur Community
Pittsylvania	Negro Garden Club Workshop
	Danville Council of Garden Clubs
Prince Edward	Farmville Shade Tree Planting Program
Prince William	Dunfries Garden Club and Home Demonstration Club
Roanoke	Roanoke Women's Club
	Southwest District of Garden Clubs
	Roanoke Rose Society
	Salem Rotary Club
	Roanoke Kiwanis Club
Rockingham	Harrisonburg Garden Club
Spotsylvania	Partlow Community Club

TOURS

Tours were used as another teaching method during the year. On these tours the specialists pointed out good and bad landscaping, identified plant material, and discussed pruning, lawn care, insect and disease control, etc.

In several counties where the Extension agents arranged these tours, visits were often made to several homes on a street or to all the homes in a neighborhood.

Several groups toured the V. P. I. Arboretum that is being developed near the V. P. I. campus in Blacksburg. These tours were under the guidance of the specialists and were arranged for the following groups:

Garden Lovers' Short Course

Virginia Federation of Garden Clubs

Roanoke Vegetable Growers

West Virginia Home Demonstration Club members

Institute of Rural Affairs

Virginia Extension Agents

Floyd County Home Demonstration Clubs

Town and Country Garden Club

Radford Garden Club

South Boston Clubs

Village Community, Radford

IMPROVEMENT OF PUBLIC BUILDINGS AND COMMUNITY PROJECTS

The specialists visited 80 public buildings during the year. It was not possible to visit all the public projects as requested by the farm and home agents. The majority of the visits were made to schools and churches.

In most cases the specialists met a committee and made on-the-spot recommendations. If the committee had a plot plan of the project prepared, the specialists made their recommendations directly on their plot plan, but if a map was not available the specialists prepared a field sketch and left it with the committee. On a limited number of projects more formal plans were drafted on the specialists' return to the office.

Several community surveys were made for individual towns to ascertain what landscape steps were needed to beautify the towns. Reports were prepared for Radford, Covington and Farmville.

County	Project
Albemarle	Albemarle High School
	Shady Lawn Church
Alleghany	Dunlap Central High School
	Granbury Memorial Church
Bedford	Otterville Baptist Church
Botetourt	Trinity Valley Cemetery
	Fincastle High School
	Daleville Elementary School
Buckingham	Dillwyn Baptist Church
	Brethern
	Baptist Church
Campbell	New Chapel Baptist
	Forest Hill Methodist parsonage
	Forest Hill Baptist parsonage
Carroll	Gardener Cemetery
Charlotte	Wylliesburg High School
Chesterfield	Henry's Vet. Establishment
Clarke	Clarke County High School
Craig	Maywood School
	Maywood Cemetery
Essex	New Center Cross High School
Fluvanna	Court House green
Franklin	Rocky Mount Community Hospital
	Naff Community Club

County	Project
Gloucester	Gloucester High School
	Botetourt Grammar School
	Bellamy Church and parsonage
Greene	Standardsville Elementary School
Greensville	Greensville County High School
	Butts' Tavern
Henrico	Sandy Grove Methodist Church
Henry	New Elementary Martinsville
	Elementary School
Loudoun	New County High School
Louisa	Episcopal Home
Mecklenburg	Chase City Baptist Church
	Friendship Methodist Church
	Christ Episcopal Church
	St. Andrews Episcopal Church
Montgomery	Radford Town Planning Board
	Blacksburg Methodist Youth Center
	Blacksburg Methodist Church
	Community Landscaping - McBride Village
	Annual judging yards - Prices Fork
	St. Alban's Hospital - Radford
Nansemond	Tidewater Agricultural Exp. Station
Nelson	Nelson Health Center
Northumberland	Northumberland High School
	Heathsville Methodist Church

County	Project
Orange	Orange High School
Pittsylvania	Mt. Herman Baptist
	Shady Garden Church
Prince Edward	Town of Farmville Tree Planting Program
Prince George	Hopewell Veterans' Project
Prince William	Osborn High School
	United Brethern Church
Pulaski	Draper's Presbyterian Church
	Draper's Presbyterian manse
Richmond	St. John's Cemetery
	Minokin Baptist Church
	Newland School
	Farnham Baptist Church
	Warsaw National Bank grounds
Roanoke	Goodwin's Motel
	Lakeside Spring Park Area
Rockingham	Bridgewater Public Park
	Timberville Community Recreation Project
Surry	Surry Elementary School
Sussex	Wakefield Community Club
	Newville Church
	Oak Grove Church

County	Project
Tazewell	Burke's Garden Picnic Area
	Burke's Garden Methodist Church
	Fall Mills Demonstration Club
	Picnic Area
Warren	Rockland Community Club
	Rockland Church
	Reliance Brethern Church

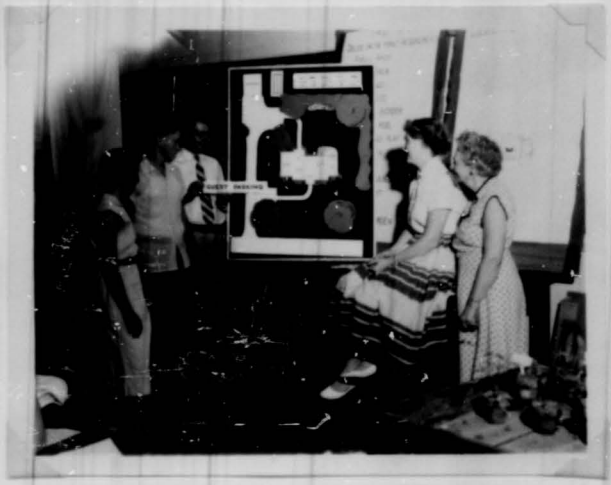
4-H CLUB ACTIVITIES

Four class periods dealing with the Home Grounds Beautification Project were held by the specialists during the annual 4-H Short Course held on the campus of V.P.I. The flannelgraph material on landscaping with a syllabus was made available to all agents doing club work on the 4-H Home Grounds Beautification Project. The specialist met with several of the agents to help them set up a program for the year. Slide sets were prepared and loaned for various programs.

Two 4-H club members from Henrico helped the specialist set up the landscape exhibit at the Better Homes and Garden Exhibit in Richmond.

It was noted that several counties during the last year selected the Home Grounds Beautification Project as their major project. This was especially true in the counties that are fast becoming urban. In order to meet this increased interest, additional literature is being prepared.

HENRICO 4-H CLUB BOYS HELPING SPECIALIST
TO SET UP EXHIBIT ON LANDSCAPING.



FLANNELGRAPH USED BY SPECIALIST AT
4-H SHORT COURSE.

SPECIALIST HOLDING A CLASS ON HOME GROUNDS BEAUTIFICATION AT THE ANNUAL 4-H SHORT COURSE

SHOWING SLIDES AT THE 4-H SHORT COURSE ON HOME GROUNDS BEAUTIFICATION.

I. A PROBLEM COMMON TO MOST VIRGINIA COUNTIES

The increase in population together with the pronounced trend toward urban developments has increased the calls made on County and Home Agents for help with ornamental problems beyond anything they can meet with their limited training in this field. Homes which were landscaped ten or more years ago present problems of overgrown or crowded ornamental plants. Some of these older places have never been planted at all. Now the older residents are stimulated to do something about these problems as a result of a state-wide interest in such matters. Many new homes have been built in the "bulldozer era." That powerful piece of machinery cuts into a hillside and fills low places, leaving in both cases the most unfavorable conditions for plants. The same machine will damage roots of trees to be left by cutting too deep or by filling over the root area.

In order for the County Agent to help the many home owners with such problems, he must be able to (1) identify the ornamental plants in his county, (2) understand the growth habits of these plants, and (3) know when and how to prune them for a particular use or effect. (4) He must know about lawns and (5) a wide variety of flowering plants commonly grown in borders. This is the broad problem facing every County Agent and Home Demonstration Agent in Virginia.

II. WHAT TO DO ABOUT IT

With the limited specialists' time it has been impossible to meet all the individual groups over the state when the Agents would like to schedule the meetings.

During the current year a plan was tried in two counties which proved to be very successful. The counties selected were Mathews and Halifax. In each case the County Agents made careful preparations so arranged that the specialist would spend most of the daylight time visiting homes, schools, churches, and community centers where problems could be discussed with local groups; and the remainder for demonstrations and meetings.

III. WHAT HAPPENED

Four different clubs and groups in Halifax County requested assistance from the specialists, each group suggesting different dates. Through correspondence with them and County Agent C. H. Hall, a plan was made to have all four groups cooperate in the meetings, demonstrations, and visits during the two days the specialists would be in the county.

The following report was sent by County Agent E. L. Phillips regarding the results of the work in his county. This is typical of the work that was done in the two counties.

COPY

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS

VIRGINIA POLYTECHNIC INSTITUTE AND THE UNITED STATES DEPARTMENT OF AGRICULTURE COOPERATING

STATE OF VIRGINIA

P. I. AGRICULTURAL
TENSION SERVICE

The following is submitted as an example of Extension Work done by the specialists in Ornamental Horticulture.

Mathews, Virginia
June 25, 1954

Mr. A. G. Smith, Jr.
Associate Extension Horticulturist
Blacksburg, Virginia

Dear Mr. Smith:

I am sending under separate cover our local weekly paper.

You will find on Page 10 a short account of your visit to our county. It is under Ramblings of A County Agent. I write this column every week and find it is quite widely read; therefore I often put information in the column rather than having it published otherwise in the paper.

You will also find some pictures and information about the Spring Festival on which we were working when you were here.

Thank you again for being with us. Many people have said how much they appreciated your visit. Even some people who were not visited or were not at either meeting spoke about your visit, so apparently the grapevine is getting in its good licks.

Yours very truly,

E. L. Phillips
County Agent

ELP:AH

THURSDAY, JUNE 24, 1954

GLOUCESTER-MATHEWS GAZETTE-JOURNAL

Ramblings Of A County Agent

By E. L. Phillips

Beautiful Lawns in Mathews County

A. G. Smith, Associate Extension Horticulturist at V.P.I., spent two days, June 15 and 16, in Mathews County. During that time I had the privilege of visiting almost 20 Mathews County homes with Mr. Smith. I suppose roses are Mr. Smith's speciality but he is definitely an expert in shrubs, trees, lawn grasses and landscaping.

This visit was especially beneficial for me because my training and experience in this phase of rural living are very much lacking. This was almost an intensive course in the many phases of exterior home beautification to me.

The effectiveness of Mr. Smith's visit was increased greatly by the generous assistance given by Mrs. Ernest Pierce and Mrs. Bernard Meredith. These ladies helped to select the homes to be visited and drove us to the places where we would find some of our problems as well as some of the most beautiful lawns, trees and landscaping.

On Wednesday afternoon, Mr. Smith spoke to the Mathews Garden Club at the home of Mrs. Thomas Horan. His subject was shade trees. He suggested using several kinds of shade trees which grow well in Mathews County. He gave the characteristics of each tree and explained in what situations each should be used. He also gave some good information about how to set out trees and how to manage the lawns and shrubbery where shade trees are used.

In the evening, Mr. Smith spoke to the John Clayton Garden Club at which was invited the members of the Gwynn's Island Garden Club and the Colonial Garden Club. He spoke on landscaping. He explained the various phases of the home site plan. The interest in both meetings was emphasized by the numerous questions which were asked following each talk. This was especially true at the night meeting where the lateness of the hour finally demanded an end of the discussion.

Some Lessons Learned

Most of the home owners we visited are doing a very good job of managing their lawn, their trees and their shrubs. But we have our specialist to help us know our problems and find ways of overcoming them. The purpose of the home visits was to see these problems and see how the remedies could be worked out on the scene.

Right many people were having trouble with their dogwood, boxwood, camellias, gardenias, azaleas and roses. Many of these plants have the appearance of being hindered by diseases or insects. Almost invariably the troubles were caused by improper management. Setting the plants too deeply, working around the shallow roots, crowding by other plants, poor soil aeration, poor water drainage, and of all things, pampering by too much fertilizer or mulch.

Most of the damage done to the plant was caused by people with the best intentions and most energy it seemed. Most of the shrubs have their root system almost on top of the soil. When we scratch around these plants or even pull wire grass or larger weeds, the roots are damaged and the plants begin to show poor leaf color or lose some leaves.

We saw right many shrubs which were planted too deeply. Most shrubs should be set at exactly the same depth they were in their original setting. Some people had put sawdust or other mulch right much too deep around their plants. Two things can happen when this mulch is too deep: 1. During wet weather the roots grow up into this mulch, then when it turns hot and dry the mulch dries out and these roots die. 2. Some kinds of mulch becomes compact and smother the roots under it.

We saw dogwood, boxwood, and many other shrubs which were injured by digging around the base of the plants. Usually the soil around these shrubs should be level so the water does not run away from the plant nor does it form in pockets at the base of the plants and drown the plants.

Too much manure and fertilizer also were the culprits causing damaged plants. At least two things happen to injure plants when you are too generous with these materials: 1. Too much actually causes root injury. 2. These rich plant foods cause rapid, tender growth which is subject to injury by diseases and adverse weather. This unbalanced plant food also causes inferior blooms or fruits.

Mr. Smith said we were fortunate to be living in an area where the conditions for growing trees and shrubs are so favorable. He expressed his admiration of the many splendid trees he saw on so many of our lawns. He said if we would cooperate with mother nature in her generosity to us, we not only could produce the best of plants, but that we should be troubled but little with insects and diseases.

I guess we are not much different than people in other sections of the state. Everyone is interested in what to use as sprays or dusts to combat insects and diseases. Mr. Smith discussed the various types of insects and diseases and gave recommendations for controlling each. But he emphasized the importance of selecting the varieties of plants and trees which thrive in this area, then managing each properly for healthy, sturdy growth which in turn would eliminate much of the trouble with insects and diseases.

We were most fortunate to have Mr. Smith with us for these two days. He is an exceedingly busy man. He is recognized as top authority in his field of work. I am sure those of us with whom he worked were greatly benefited and these benefits will spread to our many neighbors.

The following are typical of many letters relating to the field work of the specialists:

(Copy)

Harrisonburg, Virginia
July 1, 1954

Dear Prof. Smith:

On behalf of the Kensington Garden Club members I want to thank you for coming as our guest speaker to our club on Monday, June 28.

I have heard nothing but praise of your talk which was so informative and interesting.

Please send me any information which you have in relation to the Schools there in August 2-7. I'm trying to get all the information I can to go on the radio in the way of forums, notices, etc. I am State Radio Chairman for the Virginia Fed. of Garden Clubs. I would also like for you to tell me if you don't mind which of your nearest Radio Stations would give us the best publicity for the School? I want to get some speakers lined up too for broadcasts in that vicinity. Anything you can do to help me will be greatly appreciated. I know you are a very busy man, and hesitate to ask you. However, we both have a mutual interest in the school.

Thank you again for being with us.

Cordially,

Mrs. James M. Jefferson
130 Campbell Street
Harrisonburg, Virginia

(Copy)

COOPERATIVE EXTENSION WORK
State of Virginia

Floyd, Virginia
June 15, 1954

Dear Mr. Smith:

I want to express the appreciation of the Floyd County Home Demonstration Club members for your part in making our day at VPI so enjoyable. I, too want to thank you for the explanation of your department.

We hope to come back again next year.

Sincerely yours,

(Mrs.) Frances H.
Graham
Home. Dem. Agent

(Copy)

GARDEN CLUB OF MATHEWS COUNTY
Mathews, Virginia

Hallieford
July 26, 1954

Dear Mr. Smith:

At the July meeting of our club we were discussing the June meeting and the very interesting talk you gave. The club certainly appreciates your visit to us.

Some of us have heard you several times and we always find your talks stimulating and informative.

Mathews - 2

I believe I am the only member of the club present in June who was also present when you gave us a program on pruning of trees and shrubs. That was years ago when Mr. Birdsall was here and I recall that you took us out on the Library grounds and trimmed many of the shrubs to show us exactly how to do it.

We hope to have the privilege of hearing you speak many more times.

Sincerely,

Alice Kress Seay

(Copy)

COOPERATIVE EXTENSION WORK
State of West Virginia

Morgantown, W. Va.
June 29, 1954

Dear Prof. Smith:

I cannot express to you too much my appreciation of all that you did to make the trip to the Arboretum by the farm women from Monroe and Mercer counties a success. They all were very outspoken in their appreciation of the opportunity to visit the Arboretum and in spite of the slight dampness which we incurred that day, they all had a good time and I am sure derived a great deal from it.

Again expressing to you and through you to others on your staff my appreciation, I am

Sincerely,

T. D. Gray
Ext. Landscape Architect

(Copy)

COMMONWEALTH OF VIRGINIA
Richmond 19

Salem, Virginia
June 28, 1954

Dear Mr. Smith:

I wish to thank you for your letter of June 25th to Miss Mary P. Dupuy. This information was also valuable to me as I have received numerous complaints concerning dogwood trees showing signs of dying or of being in an unhealthy condition.

Very truly yours,

R. L. Micar
Associate Landscape
Engineer

(Copy)

COOPERATIVE EXTENSION WORK
State of West Virginia

Union, West Virginia
June 19, 1954

Dear Professor Smith:

I would like to take this means of thanking you and your staff for the many kindnesses shown us during our visit to V. P. I. and the Arboretum.

Our visit to the Arboretum was most informative and delightful. We are looking forward to another visit in the future. Perhaps then we will have more time to visit other parts of the Arboretum that were missed in yesterday's visit.

Thank you again for a most enjoyable day.

Sincerely yours,

Eleanor M. Jackson
Home Demonstration Agent

(Copy)

COMMONWEALTH OF VIRGINIA
Department of Highways
Richmond 19, Va.

April 5, 1954

Dear Mr. Beecher:

I want to take this opportunity to thank you sincerely for your great help and fine cooperation in arranging and handling our Landscape Superintendents' Meeting.

Everyone was high in praise of the program, and I know that all left with the feeling that they would like to have had the Wednesday session extended over several days.

Please express our appreciation to all those who participated in our meeting for their efforts in our behalf. I am in hopes that we can arrange another meeting next year that will carry over two or three days at least. If you have any ideas on this subject after discussing it with those that were on the program, I will be very glad to have your comments.

If you get to Richmond, be sure to drop in and see us. We would like to talk with you about this subject.

Sincerely yours,

M. J. Neale
Landscape Engineer

(Copy)

1738 Virginia Road
Winston Salem, N. C.

Dr. Albert Beecher

Dear Sir:

Both Mrs. Bennett and myself would like to express our appreciation to you and your staff for our pleasant stay in Blacksburg.

Everyone we met was so cordial and did everything possible to make our stay a pleasant one.

We both feel that we learned quite a bit, and had such fun doing it.

We both hope you will let us come back again.

Sincerely,

Doris S. Cummings

(Copy)

VIRGINIA FEDERATION OF GARDEN CLUBS

Middleburg, Va.
August 8, 1954

Dear Mr. Beecher:

Again let me thank you and your staff for their cooperation in helping us with the Flower Show Judging School. This to me, was one of the best overall schools to date, and I wish you could have heard the comments made by out of State students as well as our own.

Va. Fed. - 2

We will have to get busy, now, with plans for our February school, and I am sure Mrs. Utt and her committee will collaborate in any way you wish.

Please do not fail to call on me if I can be of assistance.

With all good wishes, I am

Most sincerely,

Mrs. D. T. Saffer

(Copy)

September 18, 1954

Dear Mr. Beecher:

Received the sketch and literature. It pleases me very much. All I needed was a good basic and general idea. Am quite sure it will be applicable.

Thank you for helping me.

Sincerely,

Jeanette B. Owen
(Mrs. H. E.)

(Copy)

4 Shirley Road
Warwick, Va.

Dear Mr. Beecher:

You were so kind to look our plans over for the Warwick Public Library and to secure Mr. Robert H. Brome III to help us.

Do wish to thank you for sharing your valuable time with us.

Am sorry the compass directions were not on the drawing along with the size of the plot.

Again thanking you for referring us to Mr. Brome, whom I have written for an appointment.

Am enclosing a few stamps to cover postage.

Yours truly,

Mrs. Harry A. Magnus

(Copy)

VIRGINIA FEDERATION OF GARDEN CLUBS

Roanoke, Virginia
October 8, 1954

Dear Mr. Beecher:

I have had so many fine reports about our program last Wednesday. Some of the ladies said it was the best program we've ever had, some said it was the best lecture you've ever given and all of them liked it. It was very interesting and educational and we are grateful to you. Pictures help so much and the "don'ts" are as enlightening as the "dos."

Thank you so much for coming, it was a program we will remember, I'm sure.

Sincerely,

Louise Bredeen
(Mrs. R. L.)

(Copy)

NOLAND HEIGHTS GARDEN CLUB
Waynesboro, Virginia

October 14, 1954

Dear Mr. Beecher:

The members of the Noland Heights Garden Club wish to thank you for the very interesting and informative talk you gave our club on Tuesday night.

Thank you so much for giving us your time; we enjoyed your talk so much, in all probability we shall be calling on you again.

Sincerely,

Mrs. L. W. Scott
Secretary

(Copy)

COOPERATIVE EXTENSION WORK
State of Virginia

Rocky Mount, Va.
Sept. 16, 1954

Dear Members of the Glade Hill
Community Improvement Club:

Your September meeting will be in the Glade Hill School Cafeteria on Monday, September 20th, at 7:30 P. M.

Mr. A. S. Beecher, Associate Extension Horticulturist from VPI, will be present to speak on improving home grounds. He will be able to answer a number of questions which you may have in mind.

Your Community Improvement Club will be judged about the middle of October. It is important that each family turn in a Check Sheet and that a report be ready for the club by that time.

Sincerely,

Jane Craig
Co. Home Dem. Agent

J. B. Flora
County Agent

(Mrs.) Anita P. Love
Ass't. Co. Home Dem. Agent

C. C. Tucker,
Ass't. Co. Agent

(Copy)

Lancaster, Virginia
November 22, 1954

Dear Mr. Beecher:

Thanks very much for the use of the slide and the syllabus. I enjoyed showing them to the 4-H Clubbers and they were real interested in them. I used them in ten clubs with about three hundred 4-H Clubbers.

The slides went over very well with the club members from the fifth grade through high school. I asked them to criticize the slides and tell what could be done to improve the home. Then I would tell them what could be done in addition to what they pointed out.

Several of the 4-H Clubbers and teachers said they enjoyed the slides.

Thanking you very much, I am

Yours sincerely,

L. Earl Williamson
Asst. County Agent

WORK WITH COMMERCIAL NURSERYMEN AND FLORISTS

During the year educational work has been continued with nurserymen and florists. Over a period of years the specialist has worked closely with the Virginia Nurserymen's Association. Each month the specialist edits the V. N. A. News and has it sent to Virginia nurserymen.

Two state-wide educational meetings for nurserymen are held each year - January and August. At the January meeting the specialist made an address on current problems. H. van de Werken of the Experiment Station Staff gave an excellent talk on LANDSCAPING THE WHOLE PROPERTY which he illustrated with sketches in color.

The PLANT VIRGINIA program sponsored by the V. N. A. has been helped by the specialist through meetings and by exhibits.

THE ANNUAL TWO-WEEK SCHOOL FOR NURSERYMEN, sponsored by the Virginia Agriculture Extension Service, started January 4. This school is under the direction of the Section of Ornamental Horticulture at V. P. I.

During the first week emphasis was placed on, (1) practice in solving particular landscape problems; (2) "short cuts" in making sketches of special landscape features; (3) making quick landscape plans for private and public properties; and (4) plant material in landscape design.

SALESMANSHIP and EXECUTING THE JOB were the themes for the second week, January 11-16. Sessions were held each day during the morning, afternoon, and night in the landscape laboratory.

Henk van de Werken, of the V. P. I. Experiment Station Staff, prepared in advance a set of landscape problems. These were arranged in sequence from simple steps to the completed plan, and all were made to fit the handy 14 x 17 drawing pad. In all, this series contained 25 practice sheets. These were printed on white paper in sufficient numbers to give each student a full set for use during the school and for reference in the future.

Mr. van de Werken also prepared a set of problems and aids in perspective drawing for more advanced students and a number of practice sketches including tree forms, architectural features, shrub masses, etc.

The morning and night sessions were held in the laboratory while the afternoons were used in part for work on the sites of the "guinea pig" properties. A group of new buildings, including residences, tourist courts, and public schools, was selected for practice work. Outline plans of these buildings and grounds were prepared by Mr. van de Werken for each student. In addition to this, the V. P. I. Extension Service supplied pictures of the buildings for reference use during the laboratory sessions.

Norman H. Cole, Sr. and Norman H. Cole, Jr. of the Cole Nurseries, Bluefield, West Virginia, led a discussion on plant material. The Coles exhibited specimens of assorted plants which are especially adapted to colder sections of Virginia, West Virginia, and adjoining states. Among these were some newer types of Ilex opaca, one with large red berries and another with orange berries; numerous varieties of Taxus, Berberis, Pinus, Tsuga, and others.

Diagnosing plant troubles was the theme of discussions led by A. G. Smith, Jr. of V. P. I. It was pointed out that nurserymen are often blamed for the loss of plants which were killed by customer "treatments." Attention was also called to the relation of "weather sequence" and plant troubles.

Henry. H. Wiss of the Department of Architectural Engineering demonstrated methods of sketching particular areas in the landscape. He also demonstrated the use of various pencils and pens which are easiest to use in making free hand drawings.

Professor Wiss entertained the group at his home one evening and showed color slides of gardens he has visited in many countries of the world.

Five lectures on salesmanship were given by Mrs. Annabelle Grimes of Waynesboro Nurseries, Inc. These were presented during the mornings of the second week. Detailed outlines of these talks were given to each student for future study.

W. D. Arnold of the Hainesfield Nursery, Bristol, Tennessee, also gave a talk on Salesmanship based on his own observations and experience. This was followed by a question and answer period for a general discussion of sales problems.

The educational value of these short courses has been confirmed by those who have attended in former years; and by nurserymen who have sent as many as six employees from one firm with all expenses paid.

Due to the lack of sufficient help in floriculture, work with florists has been limited to visits to stores and greenhouses and to help through letters.

GARDEN CLUBS AND RELATED GROUPS

The Garden Club of Virginia, the Virginia Federation of Garden Clubs, and organized groups not affiliated with these constitute a total membership of more than 16,000 men and women.

The Extension Service at V. P. I. has worked closely with these clubs and during the current year directed two schools for judges, one Garden Lovers' Short Course. The specialists have prepared two exhibits and judged at the annual DAFFODIL AND ROSE SHOWS. Articles were prepared for Garden Gossip and talks were made before many of these clubs in the state.

STATE-WIDE EXTENSION MEETINGS

State-wide Extension meetings held at V. P. I. have been discussed under preceding headings, i. e., 4-H Club Short Course, In-Training Short Course for county agents, Institute of Rural

EXTENSION SHORT COURSE FOR NURSERYMEN. GROUP MAKING "ON THE SPOT" PLANTING PLAN FOR NEW TOURIST COURT.

STEEP BANK ON EDGE OF SINK HOLE FILL. ADVICE GIVEN TO REDUCE WASHING. USED IN CONNECTION WITH EXTENSION SHORT COURSE FOR NURSERYMEN.

Affairs, Judging School, Garden Lovers' Short Course, meeting of Highway Landscape force, Short Course for Nurserymen, and others.

ASSISTANCE FROM EXPERIMENT STATION AND COLLEGE STAFF MEMBERS

Assistance from Experiment Station and College staff members contributed much to the success of the Extension projects in Ornamental Horticulture.

H. van de Werken, who is employed for research in Ornamental Horticulture, gave much of his time in January and August for the following meetings, short courses, and tours:

Extension School for Nurserymen
Annual Meeting of V. N. A. (Talk)
Annual Meeting V. N. A. (Exhibit)
Garden Lovers' Short Course
Institute of Rural Affairs
Other Tours and Meetings

George B. Goddard, Instructor in Horticulture (research and teaching) met three Extension groups at the V.P.I. greenhouses and one in Montgomery county for discussions and demonstrations.

Special assistance on the committees was rendered during the Annual Judging School and Garden Lovers' Short Course by the following staff members:

L. C. Beamer, Associate Vegetable Specialist

F. H. Scott, Assistant Vegetable Specialist

P. H. Massey, Jr., Associate Horticulturist (Vegetable Research)

A. H. Teske, Horticulturist (Fruit)

C. H. Miller, Graduate Student Assistant

These individuals handled all registrations, room assignments, and meal tickets. With an attendance of more than 300, it would not have been possible to conduct the meetings without their constant help from early morning until late at night.

MULTIFLORA ROSE-HEDGE SURVEY

A multiflora rose-hedge survey was conducted by: (1) sending a questionnaire to each county agent in Virginia requesting the names and addresses of every person having a "living" fence of multiflora roses. Every questionnaire sent out was answered and returned. (2) A form letter was sent to each person whose name was given by the county agents. All but three of these have been filled in and returned. The data in these confirm the opinions given by county agents. This project will be followed next year after the hedges have had time to recover from the severe drought.

STATISTICAL DATA

Days in the office	144
Days in the field	142
College & Experiment Station Cooperating	239
Miles Traveled	22,370
Visits to Florists and Nurserymen	62
Annual Leave	39
Leave without pay	52½
Circular letters prepared	13
Number sent out	2,445
Bulletins sent out	27,617
Leaflets prepared	66
Number prepared	22,905
News articles prepared	32
Special papers prepared	25
Lectures	97
Attendance	4,760
Conferences with individual agents	236
Conferences with others	220
Leader Training Meetings	23
Attendance	431
Agent Training Meetings	2
Attendance	70
Clinics and Workshops	3
Attendance	265

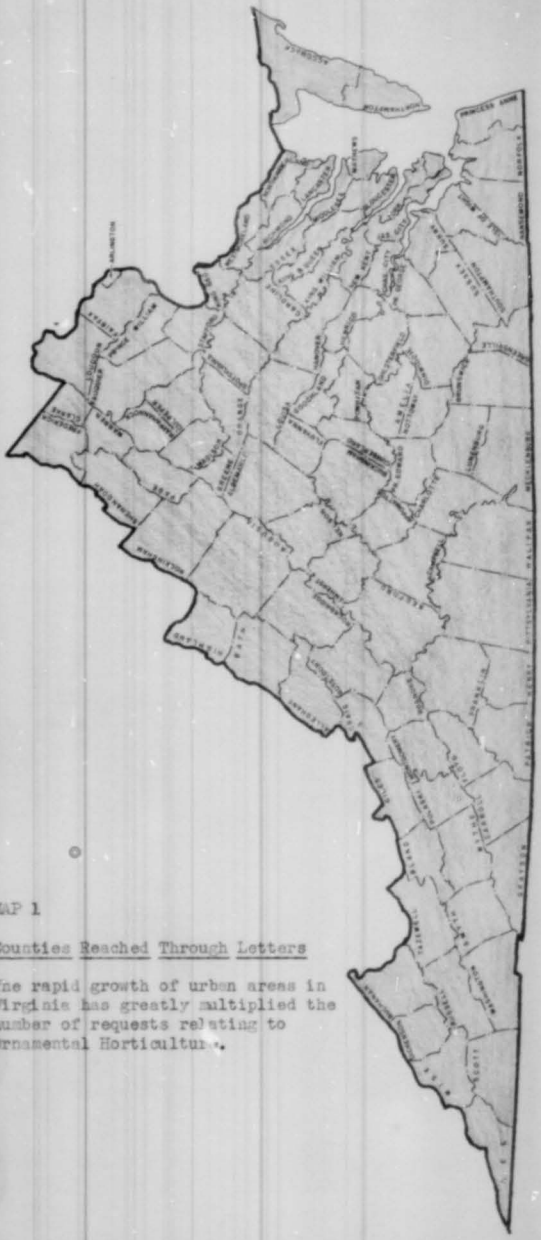
Demonstrations	418
Result Demonstrations visited	34
Attendance	302
Visits to homes	296
Attendance	940
Visits to public buildings	110
Attendance	488
Tours	18
Attendance	610
Short Courses, Schools	5
Attendance	725
Other meetings	14
Attendance	2,859
Field sketches prepared	192
Educational exhibits prepared	9
Seminars attended	13
Radio talks	21
Programs prepared	6
Number sent out	2,700
Plans, blueprints, etc., prepared	21
Letters	2,838
Slide sets loaned	24

Respectfully submitted,

A. G. Smith, Jr.

A. G. Smith, Jr.
Associate Horticulturist

AGS:bg



MAP 1

Counties Reached Through Letters

The rapid growth of urban areas in Virginia has greatly multiplied the number of requests relating to Ornamental Horticulture.

MAP 2

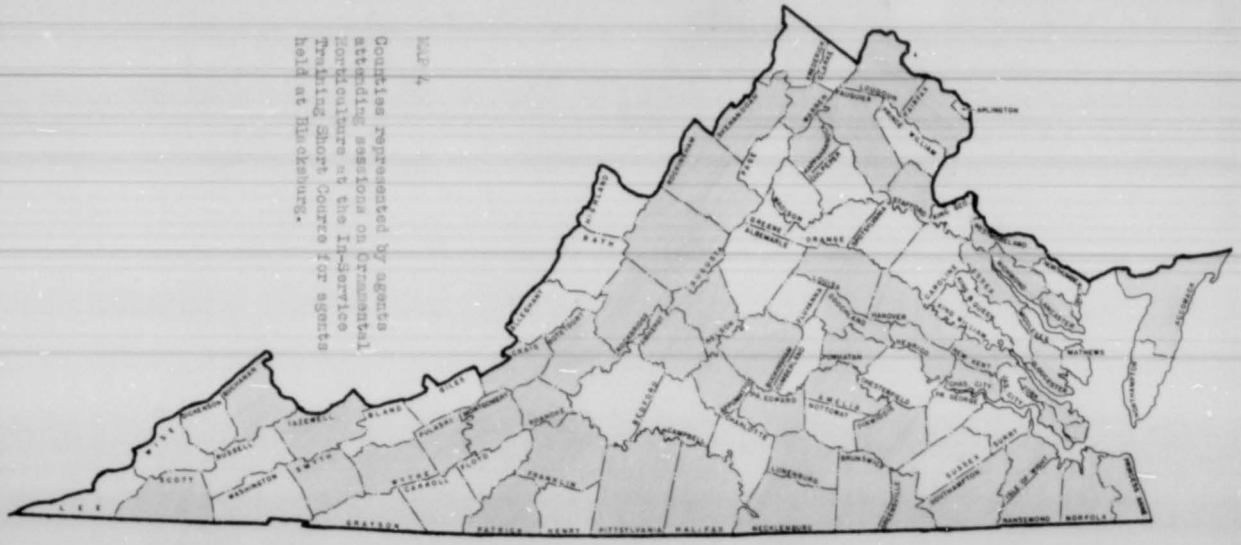
Location of Nurseries Receiving Monthly V. N. A. News

See Exhibits 32, 33, 34, and 35, also Exhibits 36, 37, and 38.

MAP 3

Counties Visited By Specialists
During Current Year

1/4 Time A. G. Smith, Jr.
3/4 Time A. S. Beecher,
December 1 to September 1.
1/12 Time W. P. Judkins,
Head of Department of
Horticulture

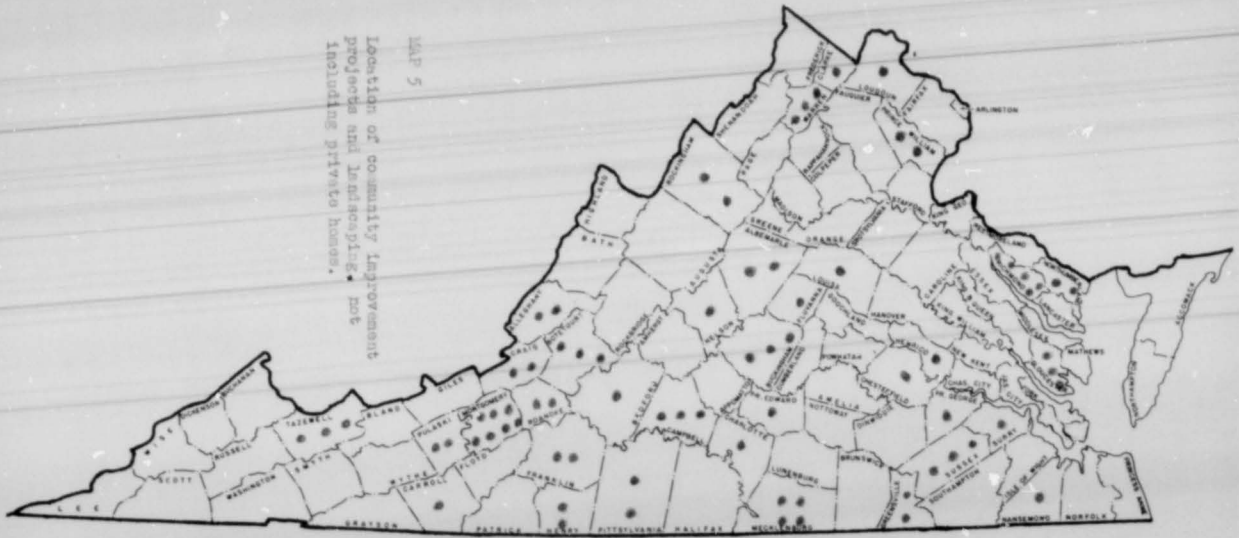


MAP 4

Counties represented by agents attending sessions on Ornamental Horticulture at the In-Service Training Short Course for agents held at Blacksburg.

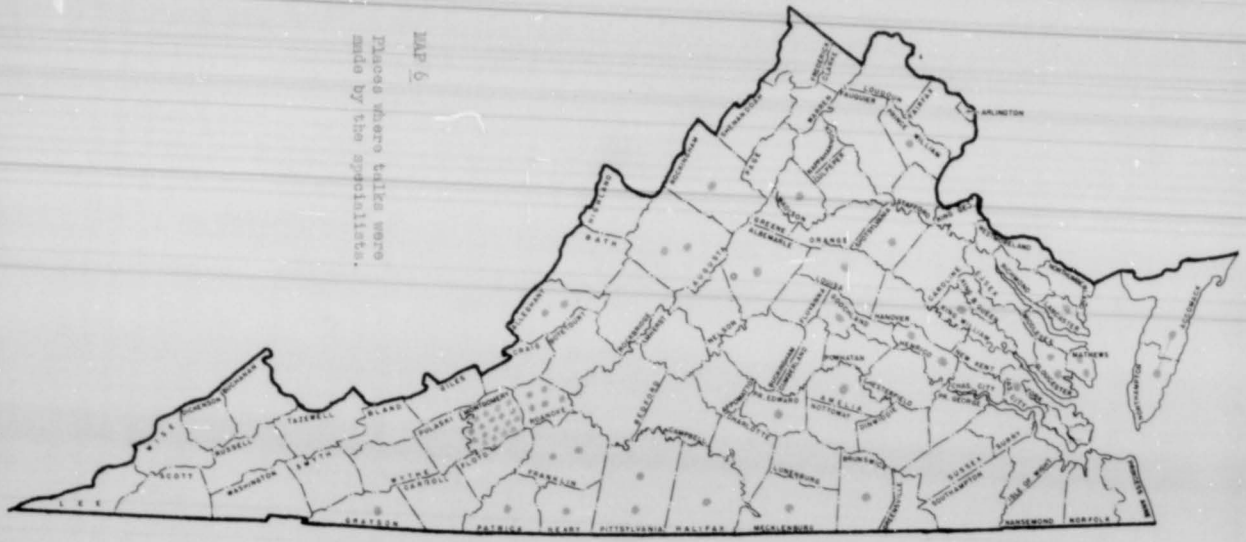
MAP 5

Location of community improvement projects and landscaping, not including private homes.



MAP 6

Places where talks were made by the specialists.

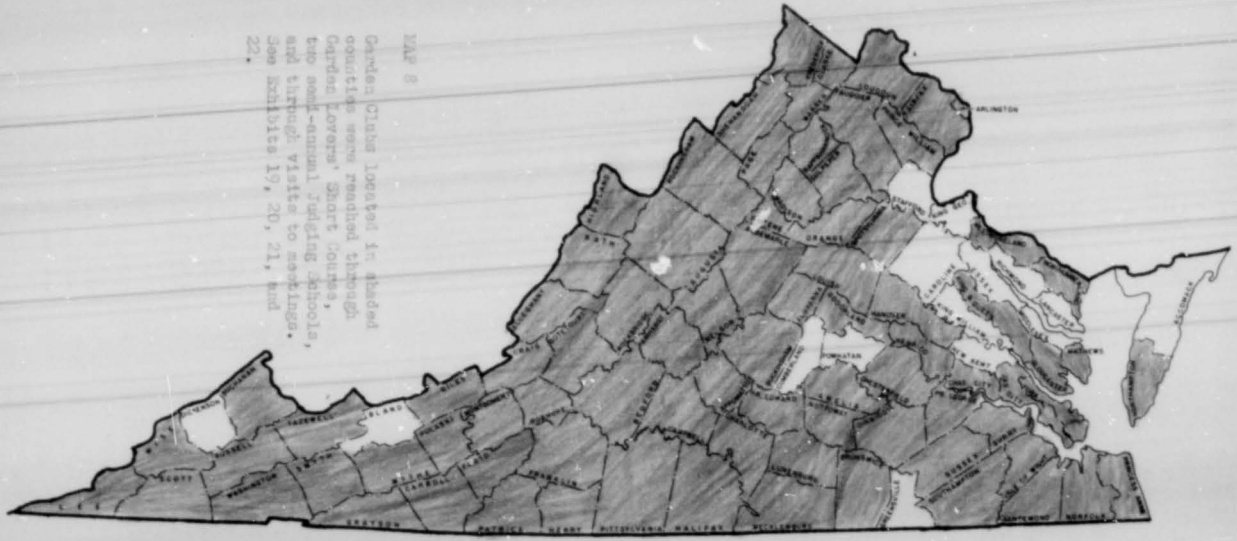


MAP 7

Location of multiflora hedges planted as line fences as reported by county agents in a state-wide survey.

MAP 8

Garden Clubs located in shaded counties were reached through Garden Lovers' Short Courses, two semi-annual Judging Schools, and through visits to meetings. See exhibits 19, 20, 21, and 22.



VIRGINIA AGRICULTURAL EXTENSION SERVICE

PLAN OF WORK – Horticulture

for

Calendar Year 1954

Major phases of project or subdivisions of project covered	Name of worker	Percentage of time devoted to entire project by each worker
Improvement of Home, School and Church Grounds	A. G. Smith, Jr.	25 percent
Short Course for Nurserymen Tours, Meetings and Demonstrations for Florists, Nurserymen and Amateur Gardeners	Albert S. Beecher	75 percent

Date submitted Mch. 3, 1954 Signed: A. G. Smith, Jr.
Project Leader

Date approved MAR 9 1954, 19__. Signed: W. W. Rumsey
Acting State Director of Extension

Date approved APR 7 1954, 19__. Signed: Clyde Ferguson
Director of Extension Work
U. S. Department of Agriculture

I. PERSONNEL

A. G. Smith, Jr., Specialist in Ornamental Horticulture, employed one-fourth time.

Albert S. Beecher, Specialist in Landscape Design and Ornamental Horticulture, employed three-fourths time. Will return from educational leave January 23, 1954.

II. SITUATION

The demand for extension help in ornamental horticulture by the people of Virginia continues to increase and some of the factors responsible are as follows:

1. Growth of the garden club movement in Virginia.

2. The Home and Community Beautification Program of the Virginia Federation of Home Demonstration Clubs. Twenty-six counties in Virginia have selected this goal as their major club project for 1954.

3. The building boom of new homes, schools, churches and tourist courts.

4. Increased national and local publicity on ornamental horticulture through radio, television, newspapers and magazines.

5. Continued popularity and enlargement of the Community Improvement Contests sponsored by local Chambers of Commerce.

6. The Plant Virginia Incorporated educational program for beautifying Virginia.

7. Movement from the farm to urban areas.

8. Growth of gardening as a hobby with the organization of new plant societies and clubs.

9. The tourist "industry", which is one of the largest sources of income to Virginia, is dependent to a large degree on a statewide interest in ornamental horticulture.

In order to meet these demands as well as possible with the limited personnel assigned to this project, the major emphasis will be placed on programs that will:

1. Attempt to awaken indifferent Virginians toward beautifying their homes and the community in which they live.

2. Assist those who are eager to beautify their homes and communities, but need guidance.

3. Train farm and home agents and the other leaders in principles of landscaping and in general horticulture so they will be better prepared to help others.

III. MAJOR PROGRAM

1. Work with Commercial Nurseries and Plant Growers.

(a) Visits to nurseries to help with various problems of the nursery industry. Special attention to be given the new nurseryman.

(b) V.P.I. Short Course - two weeks for training nurserymen in design, salesmanship, plant material, propagation and nursery management.

(c) Preparation of educational exhibits for the Virginia Nurserymen's Association Convention.

(d) Two meetings of the Virginia Nurserymen's Association.

(e) Preparation of a monthly news letter.

(f) Both specialists will serve on the educational and promotion committee of the Virginia Nurserymen's Association.

2. Work with Florists and Plant Growers

(a) Visits to florists to advise on cultural problems and to assist in planning of new greenhouses.

(b) Design school or growers' clinic for the florists.

3. Work in cooperation with county agents and home agents.

(a) Continuation of the "Home and Beautification Goal" program.

(b) Leader training meetings

(c) Training meetings for agents

(d) Visits to private and public projects with county agents and home agents.

(e) Public demonstrations - landscaping lawns - pruning.

(f) Educational meetings

(g) Preparation of visual aids and subject matter material.

4. State-wide extension meetings at V.P.I.

(a) V.P.I. Institute of Rural Affairs

(b) Garden Lovers Short Course

(c) Two Judging Schools for Garden Clubs

(d) Group tours to see plant material on campus and V.P.I. Arboretum.

5. Educational work with garden clubs, Rose societies, Plant Virginia Inc., local planning boards and other related organizations.

(a) Talks and demonstrations

(b) Visits to landscape projects

(c) Judging at shows

6. Preparation of Educational Releases for:

Newspapers

Radio

Television

Bulletins and circulars

IV. METHOD OF PROCEDURE

Since the part time specialists assigned to this project equals one full time extension worker, it will be impossible to meet all the demands from Extension Agents and others. Priority will be given to requests in the field

where large groups can be reached through public demonstrations, group meetings, training meetings or short courses for agents, leaders, nurserymen and others who in turn will be able to help others.

Individual projects will continue to be visited when they can be scheduled, but a greater effort will be made to get the farm and home agents to follow through on these visits and set them up as demonstrations. Preference will be given to counties who show a willingness to follow through on these projects.

During the year more time will be spent in the office to concentrate on preparing material on ornamental horticulture for newspapers, radio and television programs. In addition, the visual aids for the agents and others will be increased by preparing some new colored slide sets and flannelgraph material. Additional circulars and bulletins will be prepared in order to reach as many people as possible.

1. Publications

A- To be used:

(a) Bulletins and circulars

Boxwood

Notes On Azaleas

Humus For the Garden Soil

Growing Hardy Chrysanthemums

Garden Roses for Virginia

Gladiolus for Home Gardens

Lawns for Virginia

Transplanting Dogwood

Planting of the Home Grounds

The Outdoor Living Area

List of Trees

Plants for Foundation Planting

A Landscape Guide for Agents

Outline - Demonstration Home and Community Beautification Goal

4-H Check List for Home Grounds Beautification

Leader's Outline - 4-H Home Grounds Beautification

Ornamental Fruit for the Home Grounds

Spray Calendar for Virginia Nurserymen

Check List of Home Ground Improvements

(b) Visual Aids

Slide sets

Flannelgraph material

Sandbox model

B- To be prepared:

Syllabus - Planning the Home Grounds (To be used in conjunction with the flannelgraph pattern.)

Design of the Home Grounds (Revised)

Landscaping Slopes

Landscaping the Church Grounds

List of Summer Blooming Shrubs

Screening Undesirable Views

Gladiolus for Home Gardens (Revised)

Multiflora Rose Hedges

Why Ornamental Plants Die

Bulbs for Home Gardens

2. Definite Projects

(a) Projects with Virginia Nurserymen

1. V.P.I. Short Course - two weeks for training nurserymen in design, salesmanship, plant material, propagation and nursery management.

2. Preparation of educational exhibits for the Virginia Nurserymen's Association Convention.

3. Two meetings of the Virginia Nurserymen's Association.

4. Preparation of a monthly news letter.

(b) Projects with Florists and Plant Growers

1. Visits to florists to advise on cultural problems and to assist in planning of new greenhouses.

2. Design school or growers' clinic for the florists.

(c) Leader Training

Albemarle	Richmond
Bath	Warwick
Orange	Stafford
Greene	Nansemond
Highland	Prince George
Fluvanna	Lunenburg
Shenandoah	Washington
Westmoreland	

(d) County Visits to Set Up Landscape Projects

Warren	Surry
Campbell	Princess Anne
Nelson	Mecklenburg
Albemarle	Tazewell
Lancaster	Scott
James City	Orange

(e) Community Meetings and Group Demonstrations

Spotsylvania

Dinwiddie

Gloucester