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EXTENSION DIVISION
VIRGINIA POLYTECHNIC INSTITUTE
AND STATE UNIVERSITY

Soil and Water Conservation Record Book



for Virginia 4-H Club Members

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BLACKSBURG, VIRGINIA



SERVE YOUR COMMUNITY BY HELPING TO CONSERVE ITS SOIL AND WATER

Name _____ Address _____

Age _____ Years of Club Work _____

County _____ Name of Club _____

Adult Leader _____ Extension Agent _____

Record Book Completed _____

Date _____

Riley Water says: "Soil isn't something to be tracked into the house; nor forgotten in the fields. We all know that plants grow in the stuff, but did you know that it takes nature from 300 to 1000 years to produce one inch of soil and one big rain may wash away several inches of soil if it is not properly protected."

The Virginia Cooperative Extension Service by law and purpose is dedicated to serve all people on an equal and nondiscriminatory basis.

An Equal Opportunity/Affirmative Action Employer

Issued in furtherance of Cooperative Extension work, Acts of May 8 and June 30, 1914, and September 30, 1977, in cooperation with the U. S. Department of Agriculture. W. R. Van Dresser, Dean, Extension Division, Cooperative Extension Service, Virginia Polytechnic Institute and State University, Blacksburg, Virginia 24061; M. C. Harding, Sr., Administrator, 1890 Extension Program, Virginia State College, Petersburg, Virginia 23803.

Project Record

ELIGIBILITY: Any boy or girl enrolled in 4-H Club work in Virginia for the current year may enroll in a soil and water conservation project.

OBJECTIVES:

1. To study the social and economic values of soil and water.
2. To learn how to conserve soil and water.
3. To prevent soil and water wastage and deterioration in your community, state, and nation.
4. To work together on a program important to the community, state, and national welfare.

REQUIREMENTS:

- I. Study and follow instructions provided by county Extension agents.
- II. Keep a record of work done and turn it in to your leader or county Extension office.
- III. Do the following:
 - a. Those who have not completed a project in soil and water conservation.
 1. Complete two or more activities listed in Part I.
 2. Write a story telling what you have done in soil and water conservation this year and the results you obtained. You might illustrate with pictures. Be brief but complete. Not more than 500 words.
 - b. For club members who have completed one or more projects in soil and water conservation.
 1. Complete at least two activities in Part I.
 2. Complete two or more activities in Part II.
 3. Write a story telling what you have done in soil and water conservation and results obtained. Use pictures to illustrate. 500 words minimum.

PART I

LIST OF ACTIVITIES:

1. Make a scrap book on "Soil and Water Conservation Practices in My Community."
2. Make a poster on soil and water conservation.
3. Give short talk or demonstration on soil and water conservation at club meeting.
4. Go on a tour supervised by Extension Service and/or the Soil Conservation Service to see soil and water conservation practices. Include a report on your observations in your story.
5. Attend a meeting of your soil and water conservation district board of supervisors and write a brief report on what took place.
6. Discuss with your parents how soil and water conservation projects in 4-H Club work relate to other 4-H projects--for example, livestock, foods, crops, etc.
7. Arrange a showing of slides or motion pictures on soil and water conservation at a club meeting.

8. Go on a tour supervised by the Extension Service and/or Soil Conservation Service to observe the nature of damage caused by poor farming practices.
9. Keep a record of rainfall during the growing season, using a straight-side tin can for a rain gauge.
10. (a) Collect a quart jar of water after a rain from between the rows in a clean, cultivated field. Date collected _____, Crop on field _____
 (b) Collect a quart jar of water after a rain from a pasture or hay field. Date collected _____. Crop on field _____.
11. Exhibit the two jars before your club or other meeting to show how thick growing crops help to prevent soil washing. Describe this in your story, where shown, and include a picture of the demonstration if possible.
12. (a) Collect a quart jar of water from a branch or creek on or near your home farm after a big rain. Date collected _____.
 (b) Collect another quart jar of water from the same place during a dry period. Date collected _____.
13. Exhibit these two quart jars of water at your club meeting or other meeting to show how much soil is going down the stream after each rain. (NOTE: About 1 teaspoon of lime water added to each jar will cause the muddy water to settle to the bottom of the jar if allowed to stand several hours. This helps in comparing the amount of silt in each sample). Describe this in your story and include a picture of the demonstration if possible.
14. Select two stakes about 3 feet long; paint white. Drive one stake in a cultivated field, the other in a good pasture sode or hay field. After each rain observe the amount of soil splashed up on the stakes. Exhibit at club or other meeting. Include this record in your story. Tell where shown and include picture of the demonstration if possible.

PART II

LIST OF ACTIVITIES:

1. Draw a map of your farm
 - (a) As it now.
 - (b) As it should be (to prevent loss of soil or soil fertility).
2. Learn--
 - (a) The name of your soil and water conservation district.
 - (b) Counties included in your district.
 - (c) Names and addresses of soil and water conservation district supervisors.
3. Invite a soil conservation district supervisor to attend one of your club meetings. Introduce him to your club. Report in your story what the supervisor says in his talk to your club.
4. If there is a soil and water conservation district farm plan on your home farm, study this plan, and answer the following questions:

	Before Plan	After Plan
Total acres in farm		
Acres cultivated land		
Acres woodland		
Acres pasture		
Acres idle		

5. Take soil samples from at least one field, garden, or lawn, and give them to your Extension agent to send to V.P.I. for tests. In your story, draw a chart of field where soil samples were taken and ask your agent to help you interpret fertilizer and lime requirements.
6. List the recommended grasses and legumes (or pasture mixtures in your locality and give reference.)

Suggested Soil and Water Conservation Demonstration

I. "The Effectiveness of Ground Clover in Preventing Erosion and Conserving Water."

Use two shallow boxes, one filled with bare soil and the other with pasture sod, 2 jars of water (1 sq. size) and a sprinkler can. Elevate one end of boxes of soil to produce slope. Pour one quart of water on each box with a sprinkler to simulate rain. Catch the run-off water and pour back into quart jars. Almost all of the water runs off the bare soil and carries considerable soil with it. Very little water runs off the sod and it is almost clear. Good cover crops not only prevent erosion but they save water to maintain ground water storage, an important measure in maintaining well and stream flow.

II. The Effectiveness of Contour Tillage. Illustrate by a common corrugated

washboard. First, pour water over the slanted board with the corrugations horizontal. Water runs off the board slowly. Next, pour water over the slanted board with the corrugations vertical. Water runs from the board very rapidly with nothing to hold it back. In the first case the corrugations represent rows on the contour across the slope and in the second case, rows running with the slope.

III. Importance of Good Land Use. Pour water over a box of soil taken from a

gently sloping, moderately eroded field. Most of the water is absorbed in the good sandy loam topsoil. Next pour water over a similar box of soil taken from a steep severely eroded field. Soil is removed from the second box with the run-off water. Terracing, strip cropping, contour tillage, and a good rotation are some of the conservation measures that might be applied to give adequate erosion protection on the gently sloping land with good topsoil. Cultivation of the steep eroded land will produce excessive soil loss regardless of the supporting conservation measures used.



Conservation Pledge

I GIVE MY
PLEDGE AS AN AMERICAN
TO SAVE AND FAITHFULLY TO
DEFEND FROM WASTE THE
NATURAL RESOURCES OF
MY COUNTRY — ITS SOIL
AND MINERALS, ITS
FORESTS, WATERS,
AND WILDLIFE

