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#523

WATERSHED WORK


on the farm

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CURRENT SERIAL RECORDS

- 
- Reforestation
 - Grass Cover
 - Terracing
 - Contouring
 - Stripcropping
 - Sod Waterways
 - Farm Ponds

#523

Agricultural Stabilization
and Conservation Service

U. S. Department of Agriculture
Washington 25, D. C.

HOW BIG IS A WATERSHED?

A watershed is any land area from which water drains to a given point. Big or little makes no difference. The Mississippi River drains a watershed of about 1,243,000 square miles. But that watershed itself is made up of thousands of smaller ones, some entirely on one farm.

Every farm is in a watershed. And every farmer who manages his land wisely through the application of needed soil, water and woodland conservation measures is carrying on watershed conservation work.

IMPORTANCE OF WATERSHED PROTECTION

Everyone in the community benefits from a watershed protection program.

Farmers benefit from improved land management which protects and improves productive farmland. They get better crops at lower cost and earn more income per acre.

Folks in town benefit from a stable farm industry. Merchants sell more. People buy more. Business is better for everyone when farmers are prosperous.

Upstream watershed protection keeps silt out of lakes and reservoirs, and helps assure better and cleaner water for homes and industry.

Every taxpayer benefits. Flooding that damages land, crops, livestock, buildings, roads or bridges results in smaller tax revenues and increases the necessary public expenditures for repair and rehabilitation or replacement.

Floods may endanger health and safety by disrupting public utility services or making city drinking water unsafe.

LAND TREATMENT IS THE KEY

Carrying out needed soil, water and woodland conservation practices on individual farms and ranches is the backbone of any watershed program.

Structures to store water or prevent flooding are only partly effective unless basic conservation practices are applied to the farm and ranch lands above them.

This first principle is recognized by the Federal Government. Organized watershed associations cannot qualify for Federal assistance until at least 50 percent of the basic land treatment is accomplished or planned for.

SOME PRACTICES THAT PROTECT WATERSHEDS

1. **Forestry.** Tree planting is recommended wherever the area is adapted for forestry crops due to slope, erosion or soil type. Once established, stands should be improved as required. Remove low grade trees. Protect from damage by grazing. Plant birdfood. Develop into wildlife area.
2. **Grass and Legume Cover.** Plant permanent pasture where land is best adapted for grass, and pasture can be used better than a hay crop or timber products. Plant legumes or grass and legume mixtures where native pasture grasses are not adapted. Reseed as necessary. Apply lime and fertilizer as indicated by soil test.
3. **Terracing.** Terraces control water and check erosion and provide a foundation for contour farming. They are essentially ridges of earth at right angles to the slope. Graded terraces shunt water sidewise, slowing it down. Terraces provide a water management system to prevent soil erosion.
4. **Sod Waterways.** Grass or sod cover in a shaped watercourse will prevent erosion, help manage water flow, and conserve needed moisture in fields. The excess runoff is "guided" and channeled to planned waterway outlets, streams or ponds.
5. **Farm Ponds.** The versatile farm and ranch pond comes in many sizes and serves a variety of uses. Ponds are used to store stockwater, provide irrigation water, prevent erosion through grade stabilization, detain and impound water, produce fish and promote other wildlife on farms. They are essential to good water management plans, and are a source of outdoor recreation and pleasure.
6. **Contouring and Stripcropping.** Contour rows tend to hold runoff water. They result in greater absorption of water by the soil. Strip farming makes crops themselves fight to save soil and water. Strips of close growing grain or grasses planted alternately with open row crops create a series of living check dams. Stripcropping may be in straight rows or on the contour. Grass and shrub strips at right angles to prevailing winds battle wind erosion in the prairie country.

SHARING THE COSTS

Farmland conservation can be done only by the people who control the land. But it is essential to all Americans that needed conservation measures be applied. Economists estimate that, by 1975, 220 million United States citizens will require a third more agricultural production. And we're running short of water. Our water requirements and use are now 200 billion gallons a day for domestic needs, irrigation, and industrial use. In 25 years we expect that use to double. We can't afford to waste it. Our valuable farmland and water resources must be conserved by land-treatment measures.

All conservation work costs money. Some conservation practices are very expensive. They drain the farmers' income without affording immediate returns on the investment. Many farmers would not be able to apply all the conservation practices needed in the public interest without financial aid.

ASSISTANCE FOR CONSERVATION FARMERS

The U. S. Department of Agriculture offers five

kinds of assistance to conservation farmers: Research, education, technical assistance, credit, and cost-sharing. All these services are interrelated. If any one is needed but not available, the conservation work probably will not be done.

The Agricultural Research Service and State Agricultural Experiment Stations are the primary research agencies.

The Extension Service is the primary educational agency of the Department.

Technical assistance to individual farmers is provided through the Soil Conservation Service. The Forest Service provides technical assistance in tree planting and timber management through cooperation with State foresters and their farm foresters.

Loans for soil and water conservation practices are offered through the Farmers Home Administration.

The Agricultural Conservation Program (ACP) is the Department's principal program for sharing conservation costs with individual farmers and ranchers. Similar cost-sharing is offered under Great Plains Conservation Program contracts.

MEETING LOCAL NEEDS

The Agricultural Conservation Program is designed specifically to meet local needs and conditions. The program is administered by County Agricultural Stabilization and Conservation Committees, which are made up of local farmers elected by the farmers in the county they serve.

Each year the ASC committee invites the help and asks recommendations from other agencies, groups and individuals interested in conservation in selecting the kinds of practices that are needed in the county.

The Extension Agent is an ex-officio member of the county committee. SCS and Forest Service technicians have responsibility for specifications on some practices.

Programs are formulated with consideration for the county's over-all conservation needs. Many times, cost-share money is used to introduce new and needed conservation practices not yet part of the regular good farming practices followed in the county.

Practices are chosen and rates set to encourage individual farmers to use the practices that will help solve their most urgent conservation problems. Often the ACP helps farmers carry out farm and ranch conservation work which is part of a program planned in cooperation with other agencies, institutions, and organizations — such as Soil Conservation Districts or organized Watershed associations.

DO YOUR NEIGHBORS KNOW THESE ACP FACTS?

- All farmers are eligible to use the Agricultural Conservation Program. There is no distinction between big farmers, little farmers, owners or tenants.
- ACP cost-sharing is offered for practices which farmers themselves would not carry out using only their own resources.
- ACP is a democratic program in which most of the planning and operation is in the hands of farmers. There are about 82,000 community and over 9,000 county committeemen. All are farmers elected by their neighbors.
- ACP stresses teamwork between agencies of the Department of Agriculture, State and local government, and other individuals and groups with conservation interests.

26 YEARS OF CONSERVATION COST-SHARING THROUGH ACP

Terraces to control water and check erosion	26 million acres
Spreader and diversion terraces	665 million linear feet
Contour farming	144 million acres
Stripcropping	111 million acres
Permanent sod waterways and terrace outlets	30 billion square feet
All vegetative cover	775 million acres
Stubble mulching	90 million acres
Storage type dams for erosion control, water conservation, and better distribution of grazing	2 million
Drainage for conservation.....	40 million acres
Leveling irrigable land to conserve irrigation water and control erosion	7 million acres
Natural reseeding of range land by deferred grazing	219 million acres
Springs and new wells for livestock permitting better grassland management	257 thousand
Pipelines for livestock water.....	40 million linear feet
Controlling competitive plants in pastures and range	42 million acres
Tree planting	3 million acres
Timber stand improvement	2 million acres
Subsoiling to improve moisture penetration	13 million acres
Emergency tillage on crop- land to control erosion	135 million acres
Deep plowing on sandy cropland to control wind erosion	3 million acres
Contour operations on noncrop pastures	4 million acres
Lime for conservation cover.....	422 million tons

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