

1983 Morrow Soil & Water Conservation District Annual Report

'STEEP' organizes in the Northwest

Each year an estimated 110 million tons of soil are eroded from the 8.5 million acres of cropland in the Pacific Northwest. This is equivalent to losing two inches of topsoil from 330,000 acres of land per year. Severe events such as thunderstorms or frozen ground conditions in Morrow County can account for as

much as one inch of loss (160 tons) per acre. The ability to maintain high yields in this erosion prone area will depend more and more in years to come on the ability to check the loss of topsoil.

An effort was started in the mid 70's to cope with this problem. The states of Oregon, Washington and Idaho developed a program termed STEEP-Solutions to En-

vironmental and Economic Problems. Producer groups such as the Wheat Commission were very instrumental in helping to fund this effort.

The program is an interagency and multidisciplinary approach to Soil Conservation. It involves the Agricultural Experiment Stations of the three states and the Agricultural Research Service. Nearly 100 scientists concentrate their efforts in all aspects on seeking solutions to soil erosion.

The STEEP research effort has identified five main objectives. These briefly are as follows:

(1) **Tillage and plant management.** Research is aimed at developing combinations of tillage, crop, and residue management systems to control erosion and maintain crop production.

(2) **Plant design.** Emphasis is on developing cereal varieties with characteristics that will help reduce erosion and maintain production with conservation tillage systems.

(3) **Erosion and runoff prediction.** Scientists are working to improve the predictive capability of the Universal Soil Loss Equa-

(5) **Economics and socioeconomics of erosion control.** Studies have been done to better understand the reasons for acceptance or lack of acceptance of conservation measures.

The STEEP effort has given impetus to soil and water conservation in the Pacific Northwest. Morrow County farmers have a lot to gain in this program as it continues to seek solutions to soil and water problems.

tion by measuring soil loss over a range of slope lengths and steepnesses and by adapting factors in the equation to conditions in the Pacific Northwest.

(4) **Pest Management.** Weed scientists are working to identify and better understand weed communities and crop changes associated with conservation tillage systems. Also being investigated is the disease and insect status with changes in tillage and cropping systems.

Terraces reduce runoff



Level terraces such as this have worked effectively to reduce erosion and runoff. Terraces are designed to store 1.3 inches of runoff per acre.

Soil conservation even more important

By BOB COSTA
OSU Extension Agent
Morrow County

Has yield boosting technology created a false sense of security about future yields and topsoil loss?

Agricultural research and the resulting technical progress have increased yields in spite of widespread soil erosion. However, technical progress does not eliminate the need for soil conservation but rather makes conservation more important. Newer varieties and farming

practices will not substantially boost yields on exposed subsoils; topsoil is necessary. Potential yield gains from technology are even greater on deeper topsoil. Technology actually increases the yield damage from erosion, making conservation more important in terms of farm income.

Agricultural technology and soil conservation practices are both necessary to maintain future crop yields and to protect the resource for future generations. Neglecting one could severely shrink the payoff from the other.

Weed control district proposed for Morrow Co.

We have been working to establish a functioning weed control district in Morrow County. We have investigated different ways to fund the district but find that by State Law the weed control district is a County responsibility. It can be financed either by a line item on the county budget or by a county serial levy. Therefore we presented to the county court and the budget committee a proposed budget.

There should be some mention of what a weed control district can do and what it cannot do. A weed control district can go onto private land and control weeds only if the weeds in question are on the State "A List" and are listed in the County ordinance. The A list weeds are weeds that are not well established in an area and weeds that are capable of having a very serious economic impact on the area. The most important function of a weed control district is to identify and wipe out first colonies of these weeds. Some of the weeds that we are especially concerned with are: Skeleton Weed, this is a very severe weed in crop lands, it can take wheat land out of production and can make it impossible to harvest potatoes. This weed is prevalent in northern Idaho, eastern Washington and also southern Oregon. Other weeds on

this list are some very serious range weeds such as Mediterranean Sage, which is along Highway 395 from California to Grant County, but has not yet been found in this County. Leafy Spurge has been found in Montana, northern Idaho and eastern Washington, Dalmatian Toadflax is along 184 in Morrow County. We must also watch very carefully for Tansy Ragwort both in the forested areas of the county and in the irrigated pastures. The cost of intercepting these weeds would be far less than coping with them.

It is easy to overlook the danger from these weeds as we do not think of them as being capable of long migrations. But they can and do travel as seeds not just by wind and water, but also in imported hay and as impurities in grain and grass seed and in and on animals that are moved from place to place. Seeds are also transported in mud on vehicles.

As for the weeds that we have that are severely impacting the county already, the function of a weed control district manager would be to help organize community or area agreements to effect the control or suppression of weeds where economically feasible. We must recognize that where there is no economically

practical method to control or eradicate a weed we cannot bankrupt a person in a futile effort to wipe out a weed infestation.

The cost to the county to maintain a weed control district is minimal in comparison to the cost of not organizing and allowing new weeds to become established. There is the need for a trained district manager, trained to identify weeds and plants, and trained to handle chemicals. This person must have the ability to work well with people. Control costs for chemicals and time will be on the landowner not the taxpayer, recognizing that an area of prime consideration is county

roads where many weeds get their start and that would be a direct cost to the taxpayer. Weed control work on road right-of-way should not be confused with road shoulder sterilization which is being done already. This is not weed control, it is road maintenance which allows the road to drain better and saves gravel in road maintenance. Sometimes this removes the competition and allows tough weeds a seedbed.

We urge every one to support this budget item. We feel that it would be and has been a false economy not to have had an operational Weed Control District. One only need look at the

extent of the knapweed infestation to realize this, or consider the hazard of the Hemlock along our creeks and roads not just in the county but throughout the towns where our children often play along the creeks. We also feel that to be effective this district must have continuity in its funding and in personnel. For continuity we would prefer that the district have its own tax base established by the voters of the county, but the law as now written assigns this to the county and does not allow for a taxing arrangement such as other special purpose district have.

1983

12th Annual Meeting Morrow SWCD

Tuesday, March 6, 1984

7:30 p.m., Lexington Grange Hall

Public cordially invited and urged to meet the directors of the Morrow SWCD and participate in our program.

Program

Featured Speaker-Darrel Maxwell

Area Extension Agronomist (STEEP)-Pendleton

1. Review development of STEEP program and research efforts.

2. Discuss straw distribution behind combines.

3. Slide program on conservation tillage.

Refreshments will be served after the meeting.

