

Meeting the needs of a county-wide conservation district

By C.R. MCELLIGOTT, Chairman
Morrow SWCD

The conservation needs vary greatly from one end of the county to the other. We not only have the obvious differences in altitude, climate and land usage, but we also have great variation in land ownership patterns. We will recognize the needs of the dry land wheat growing area and are meeting those problems subject to limitations in personnel and cost sharing funds. Farmers are now willing to carry out conservation programs faster than we are able to meet their goals. Barring an economic downturn we feel that we can make constant progress in caring for the dry farming area. As for rangelands, there are few conservation problems that require either great manpower or funding. In general the greatest rangeland need is for livestock management, both domestic and wild, stocking rate, seasons of use and distribution on the range. This can be done by water development, fencing and hunting or wildlife management. There is some need for range reseeding and weed control, but there is no severe erosion or water quality problem in our local rangeland.

Forestry problems are addressed by the Oregon Forest Practices Act and by U.S. Forest Service regulations. The greatest problem on private forest land is in the cost of reforestation and thinning. These are economic problems that will need to be addressed by state and federal law, particularly tax laws. With the present tax laws, high interest rates and continued inflation, it is not feasible for the individual forest owner to put money into stand improvement. Here again we do not have a severe problem in either soil erosion or water quality.

In the north end of the county we have seen great changes in land use and ownership patterns in the last few years. With large scale irrigation we see problems developing and the potential for more in the future. As the higher ground to the south is irrigated, the deeper profiles will eventually fill, then water will begin a lateral movement over impervious layers towards the river. This has already been noticed and will quite likely become more severe in the future.

We also see the older irrigation districts being broken into very small farms and housing tracts. Rising water tables can and do cause septic tank failure, can endanger, and consequently lower property values. Our district has had requests for help in designing drainage systems, but often we cannot help if the answer is to drain one property and dump the excess water on the road or on the next lower neighbor.

With these thoughts in mind we have invited Greg Tillson to speak at our annual meeting. Greg is an Extension Service Community Development agent working in Polk and Benton counties. We do not know what the greatest need is nor how soon action must be taken, but we do feel that drainage projects, community water or sewer systems are best and most economically done by the community organization and action, rather than attempting to do these things individually. We have also invited the county court, the county health officer, the county planner, DEQ and FHA representatives. We hope that Mr. Tillson can generate a lot of thought and questions and that we may have some of the answers. We do know that the decision on a course of action must come from the citizens in the affected area.



The Peterson ranch was used again in 1979-80. During this particular season the field had between 600 and 1000 pounds of dry residue on or within one inch of the soil surface. The field was drilled on a cross slope with deep furrows. Measured erosion was 6 tons per acre with approximately 1.5 tons per acre leaving the field.

Water Quality Influenced by Runoff from Cropland

The Columbia Basin Agricultural Research Center is studying water quality runoff from cropland. According to their Best Management Practices (BMP) system, which was started in 1978, the first BMP to be evaluated was terraces and their impacts on erosion and water quality. The findings in 1978 indicated for a given slope that direction of seeding (up and down hill or cross slope) and methods of seeding (shallow furrow or deep furrow) would effect erosion approximately as much as the terraces.

In the fall of 1978 sites were located on Don Peterson's farm, Valby. Measurements at these sites indicated an average in field soil movement of 13 tons per acre with 2.9 tons per acre reaching the terrace outlet. The field this year was in seeded crop.

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This current crop year the site was moved to the Al Bunch ranch to reduce servicing time and to evaluate strip cropping and stubble mulching. The strips are between 150-200 feet wide with over 1200 pounds of residue in the top inch of soil and he has drilled deep furrows.

From observations of stubble mulched fields it appears that stubble mulch will greatly reduce erosion and, with terraces, will substantially improve water quality.

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