## SCS and the budget

## Will federal cutbacks hamstring conservation efforts?

BY JACK HUBLEY

HARRISBURG -- Though Pennsylvania remains a an agricultural heavyweight", hei weight loss program continues, as more than 100 million tons of soil finds its way to the Commonwealth's waterways each

And if the administration has its way, loss of these "liquid assets" may well increase in 1986, says the Soil Conservation Service's state  $\ \ conservation is t\ Jim\ Olson$ 

The White House's budget cutting knife proposes to whittle \$150 million from the federal agency's current \$603 million budget And of the \$453 million remaining, \$253 million would be set aside for phasing out SCS programs and personnel, leaving only \$200 million for implementing soil saving practices

Frograms to be terminated include the Small Watershed Frogram, Resource Conservation and Development, Rural Abandoned Mine Program and the River Basin Frogram

Frograms to be reduced would include technical assistance to (andowners (down 40 percent), soil surveys (down 33 percent), and plant materials centers (down 2 percent).

And with these cuts will go a corresponding reduction in conservation on the land, says Olson, noting that the nationwide SCS workforce would be pared from 14,300 to about 5,000 by the end of 1986. Here in Pennsylvania, SCS employees would number 91, down from a current staff of 270.

And Olson points out that such a proposal could have a crippling effect on efforts to clean up the Chesapeake Bay at a time when the need for conservation measures has never been greater



Jim Olson

In Lancaster County, for example, where mountains of livestock manure play a major role in contaminating both ground water and runoff, personnel at the Lancaster field office would dwindle from seven to a possible one or two, says Olson And though \$395,000 has been earmarked to: soil conservation practices in Lancaster County, (practices include construction of manure structures, contour strips. waterways, terraces and others) there won't be sufficient hands on deck to put the money to good use

Someone's going to have to make a decision about what s not going to get done," says Lancaster's district conservationist Warren Archibald. He notes that his office has received 50 requests tor planning manure holding structures since October, and 83 requests for laying out terraces During the same period a year

earlier, the office logged only about one-half this number of requests for each of these services To me, this shows an increase in interest, adds Archibald

conservationist for Fennsylvania's 13 southeastern counties, agrees that this is no time to thin the We're going backward when we should be going torward, he says. He surmises that the state

Bureau of Soil and Water Conservation might be expected to pick up some of the slack if federal cutbacks become a reality, "but you just can't train people over-Winstead Burdette, the area night to apply practices and work with landowners," he emphasizes.

If Congress were to approve the proposal in its present form, says Jim Olson, Americans could expect soil conservation measures to by three-quarters

Olson places no bets on the out-

Most congressmen feel that the cuts are excessive," he notes, "but we all realize that the federal deficit is a tremendous handicap to economic growth Congress is taced with the almost insurmountable task of providing services while reducing the budget," he concludes

# Penn State soil conservation scientists in on the ground floor of U.S. efforts

centuries, American farmers have been plagued with soil losses and resulting lowered crop production due to erosion. In the 1930s, surveys indicated that millions of tons of valuable topsoil continued to be lost through erosion in spite of conservation practices such as contour planting, crop rotations, sod waterways, and reforestation.

In 1935, the U.S. Department of Interior authorized establishment of 40 erosion control projects throughout the United States. One of these projects, a soil erosion survey, was initiated on land near the Pennsylvania State University campus.

Dr. Austin Patrick, a Penn State graduate employed by the U.S. Soil Erosion Service, now the Soil Conservation Service, worked with Penn State soil and plant scientists in developing a system to measure the severity of erosion on different types of ground cover.

Dr. Patrick and Penn State scientists Dr. Frank Gardner, Dr. Howard Higbee, Dr. Chester Ritcher, Frank Bamer, and J.B.R. Dickey, selected several sites at Penn State which had varying degrees of slope. On these, they seeded numerous species of cover crops in measured strips. Also, selected areas were left free of ground cover for use as a control. A collecting basın was constructed at the base of the plots to hold soil and water runoff. Each basin was designed to collect only the runoff from a particular strip.

The scientists made measurements on the amounts of rainfall and volume of sediment and water collected in the holding basins. From these data, they were able to make accurate comparisons of what cover crops were best or least suited for erosion control.

This early basic research helped develop new concepts in fighting farmland erosion. Researchers used the soil erosion survey plots to study what effects varying amounts of fertilizer would have in developing plants with the root strength to reduce erosion. Other experiments determined what species of cover crops would best

withstand rigorous grazing without injury to the plant's capability to maintain a strong root system.

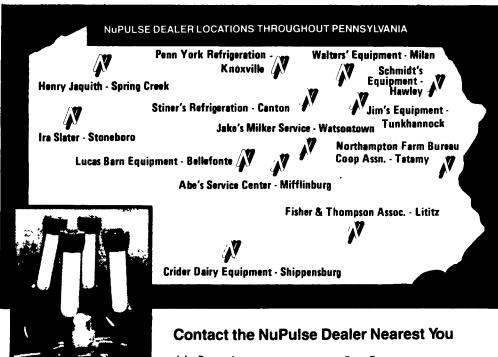
#### **Improved Plant** Varieties

As data from these and other experiments were collected and analyzed, it became apparent that improved plant species needed to be developed that had the ability to hold the soil and also yield at acceptable levels. In the succeeding years, scientists developed new and improved varieties of alfalfa, birdsfoot trefoil, and Kentucky 31 tall fescue. Before widespread use, however, all varieties were field tested by Extension agents and cooperating farmers to determine those best suited for different soil types.

Several decades after the erosion survey plots were established, they continued to serve a valuable research function. As newer herbicides were developed, data were collected to measure weed control and its relationship to erosion. Also, one site was used to calculate the

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