

## Crop Rotation Helps Cut Down Weeds

WHITE PLAINS, NY — It is well-established fact that crop rotation is an efficient and effective way to help keep yields high and costs down. At the University of Illinois, Dr. Ellery Knake points out that alternating legume crops and corn can save the farmer money on fertilizer and insecticides, maintain better levels of soil moisture, and produce better yields.

But some farmers realize that crop rotation also can improve weed control.

Knake says that some weeds tend to thrive in certain crops, but not in others. For instance, fall panicum tends to be more of a problem in continuous, no-till corn than it is in soybeans. The late planting of soybeans allows the grower more time to control a late-starter — such as wirestem muhly — that tends to be more serious in corn than soybeans.

Another weed-control advantage to crop rotation is the ability to attack weeds from different angles. Knake notes that controlling some weeds is easier in corn than in soybeans, and vice-versa. "Annual morning glories are easier to control in corn than in soybeans," he says. "But shatter-cane is easier to control in beans. So there is a real advantage to crop rotation, since you can really bear down on certain weeds in one crop and control other weeds in the next crop."

Also, the abundance of good postemergence herbicides for use in soybeans allows a grower who rotates his crops to have a preplant herbicide program one year and a postemergence program the next. If that farmer were to grow continuous corn, he would generally have to stick with soil-applied herbicides for maximum control of grass weeds, giving up the second

angle of control.

### Rotate herbicide, too

A key point in getting the best weed control by rotating crops is making sure you switch herbicides when you go from corn to soybeans, says Dr. Alex Martin of the University of Nebraska.

Martin notes that "rotating your crop without rotating your herbicide really doesn't help you much when it comes to improving weed control." He explains that if you use the same herbicide in corn as you do in beans, the weeds that develop resistance to the chemical in corn will be just as immune to that same herbicide in soybeans. The farmer, he says, would be better off simply rotating his herbicide when he changes his crop. If he doesn't rotate his crop, Martin says he should try switching his herbicide regularly, anyway.

"By switching between herbi-

cides regularly, a continuous-corn farmer can help keep a larger number of weeds in check," Martin says.

Farmers try plenty of new techniques, machines, and chemicals in order to find the ones that work best for them. When they find a herbicide that suits their timing, fits well with their crop or rotation, and controls the weeds that give them the most trouble, may feel that their weed problems are over.

Not quite. No matter how good a herbicide is, no chemical can beat the forces of nature for too long.

"Nature does not like the status quo," says Dr. Ron Doersch at the University of Wisconsin. "When something is introduced to the system, the system will adapt to it. That's why we get problems like herbicide-tolerant weeds and reduced efficacy."

### Weeds develop resistance

Doersch explains that repeated use of a herbicide can lead to the development of herbicide-resistant strains of weeds. These plants were probably always present in the field in very small numbers, he says. In the absence of herbicide-susceptible strains, their numbers can literally mushroom in just a few years. Over time, a field that once had good suppression of a certain weed can fall victim to dramatic escapes.

Knake points to strains of pigweed and lambsquarters that are resistant to atrazine in continuous corn. He recommends rotating the field to soybeans, then attacking the weeds with a different herbicide.

### Follow label directions

The good performance of some herbicides make many users hesitant to give up using those products, even for just a year or two. But university researchers warn that growers can count on consistent control only if they use the products correctly.

Doersch notes that there are situations where rotating out of a favorite herbicide seems like an unnecessary inconvenience, although it is just the opposite.

"There are specific weed problems where farmers have found the best herbicides to handle the situation, and there aren't many other products around that can do the same job," he says. But Doersch says that rotating herbicides in continuous corn is the key to maintaining these high levels of weed control.

"Although rotating both your crop and your herbicide simultaneously is the most efficient way to maintain complete weed control, the reality is that many farmers in Nebraska simply don't rotate their crop," Martin says. "In those cases, herbicide rotation is the key to maximizing control. Herbicide rotation helps the farmer maintain the utility of the herbicide he chooses, even though he can't use it every year. In the long run, though, it pays off for him."

## Hamilton Appoints

### District Manager

EPHRATA (Lancaster) — Bruce M. Boe has been appointed district manager for southwestern Pennsylvania by Hamilton Equipment, Inc.

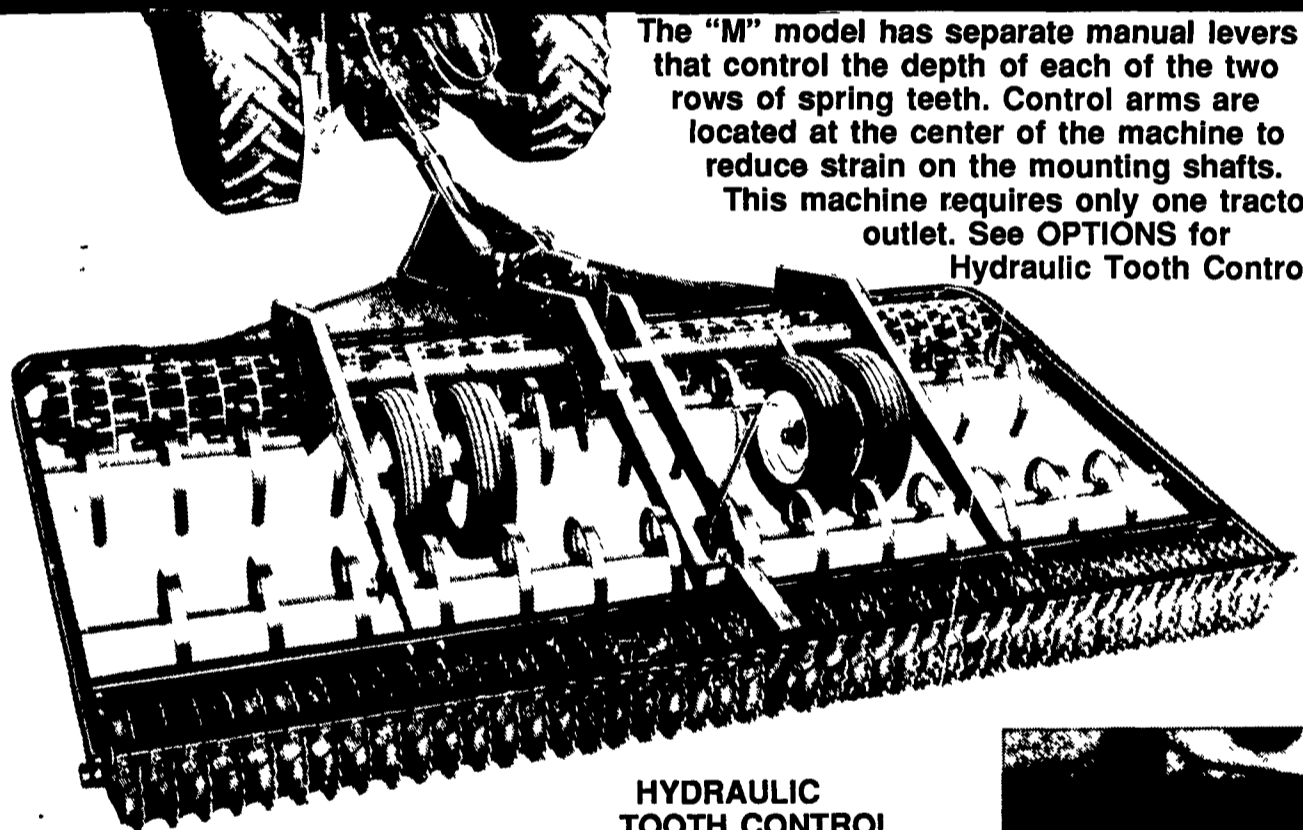
Boe, a native of Westmoreland County, is a 1971 graduate of the Pennsylvania State University with a degree in animal science.

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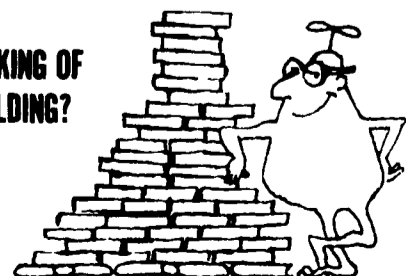
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