Burr cucumber threatens cropland

SELBYVILLE, Del. — The bur cucumber has been a pest on southern Sussex County, Del. farmland for some time. But over the past four or five years this weed has become a serious problem in some fields.

Where heavy infestations occur, they can render a crop of corn or soybeans completely unharvestable.

This annual vine grows much like the familiar garden cucumber. It also resembles another weed, the wild cucumber, but is much harder to control. Until recently only a local problem on higher organic soils around the extreme cuthern end of Sussex County, the bur cucumber has been spreading.

It has now been positively identified in fields as far north as Dover and Smyrna.

Because of its economic impact, University of Delaware extension crops specialist Frank Webb has been comparing various methods for controlling the weed in corn and soybeans. to obtain satisfactory,

Not much research has been done on control, he says, even though the pest is present in other parts of the East Coast, including Virginia, the Carolinas, Georgia and, to some extent, Florida.

After a two-year evaluation of available control procedures, Webb has a high regard for the bur cucumber.

"It's one of the most difficult weeds I've ever dealth with," he says.

Results on demonstrtion plots in two infested fields on the Richard West farm near Selbyville have led him to conclude that only corn should be grown where there is a heavy infestation of the weed.

"Our work with control of bur cucumber in soybeans so far has been disappointing," he explains. "There are several materials that will give reasonable temporary control, but the growth habit of the weed makes it difficult

season-long control in this crop."

This is because weed seedlings continue to germinate throughout the growing season. You can treat an existing stand only to see a complete flush of new growth emerge in four or five days.

"It's very prolific in reestablishing itself," says the specialist.

Satisfactory control in corn has been achieved with a split application of atrazine at the rate of 2 to 3 pounds per acre, using the higher rate on soils with five percent or more organic matter.

Apply half the Atrazine preplane incorporated. Spray the other half on top of the ground.

Where a split application was undestrable. Webb got reasonably good control with the same rates applied either all preplant incorporated or all sprayed on the surface.

Even these treatments allow some plants to escape. These can be controlled with a post-emergence spray of Banvel at the rate of one-half pint per acre. At that rate, the weed is stunted but not completely killed.

A post-directed spray of control of bur cucumber in

Webb got his best results with a combination spray of one-half pint of Banvel and one pound Evik per acre. Tnis completely killed existing bur cucumber plants. Reoccurring plants were also considerably reduced under this treat-

Because of the potential for crop loss where the weed is present, Webb advises

farmers who live in areas with known infestations of bur cucumber to be very cautious when buying uncertified seed from their neighbors.

This is particularly true Evik also provided excellent for soybeans, since the weed size is such that it is difficult to remove the soybeans.

> If you have the weed in one field on your farm, take the time to clean out your combine before moving to an uninfested field, advises Webb.

If you use custom combining on your farm, find out where the machine has been working before coming to your place. If it's coming from a farm with bur

cucumber, be sure the operator has cleaned it thoroughly before starting on your fields. Infested seedlots or machinery are probably the main ways the weed is spread, says the specialist.

'We've had a lot of other problem weeds on Delaware farms," he concludes. 'Johnson grass, Canada Thistle, and a lot of other perennials. This is the most difficult annual weed to control that I know of in our present cropping system of corn, soybeans and small grams. The best way to handle it is to head it off before it ever gets to your

Nitrite studies to continue

WASHINGTON, D.C. -Because of the continuing controversy surrounding the regulation of sodium nitrite in the food supply, the U.S. Department of Agriculture will undertake a study of the procedures used to evaluate

research on toxic substances in foods, Assistant Secretary of Agriculture Carol Tucker Foreman said Tuesday.

· "The challenge to the regulatory agencies is to fashion the type of review procedures that will provide the confirmation necessary for regulatory action," Foreman said in testimony prepared for delivery before the House Committee on Agriculture. "This challenge is not one that is confined to USDA and the Food and Drug Administration. I think it is one of the most difficult tasks facing every health regulatory agency."

Requests for contract bids on the study will be published by mid-October, Foreman said.

"USDA also contracted with the National Academy of Sciences on Sept. 11 to review existing data on nitrate and to recommend approaches for future research on nitrite alternatives," Foreman said. "Information on potential alternatives will be sought from both private industry and the federal government.

'We have taken regulatory action to deal successfully with the problem of preformed nitrosamines in bacon, but the possibility still exists that nitrosamines can be formed through the combination of nitrites with amines and amides in the human digestive tract," Foreman said.

"For this reason alone, the use of nitrite as an added substance in our food supply will continue to be a matter of significant concern to the agencies under existing law," she said.

USDA is spending \$2 million in 1980 on nitrite alternative research and will spend the same amount in 1981, she said.

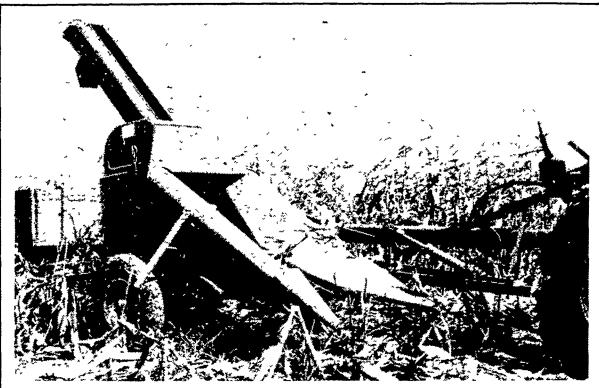
"There is little wisdom in having an entire industry and one-tenth of the nation's food supply dependent on the use of a single food additive," Foreman said. "If that substance is thrown into question, then there is nowhere else to turn."

Foreman and FDA Commissioner Jere Goyan testified today before the House Agriculture Committee oversight hearings on recent government actions dealing with nitrite and on related food additive policy.





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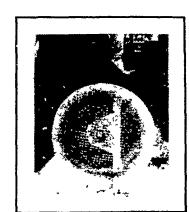
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