# Ag research funding essential for future

By JERRY WEBB

NEWARK, Del. – The relationship between agricultural research funding and bountiful food supplies is a very real one. Although it may be a little difficult for consumers to see the direct benefit from research being conducted in far-flung agricultural experiment stations and other research locations throughout the country, the benefits are there. In fact, for the past 20 or 30 years consumers have been enjoying and using up a reserve of agricultural research built over the past 50 years or more.

Some of the thinkers in the agricultural research community say that reserve is about gone. Granted we have enough food to eat, in fact we still have some stockpiles at least here in this country, but how long can that continue and how quickly can agricultural research create new reserves of knowledge?

There are those research antagonists who think all agricultural research should be abandoned until farm prices improve, or until the surpluses are all gone. Surely they realize that agricultural research cannot be turned off and on as needed. Most of the research that means anything in terms of farmer and consumer benefits requires years and years of painstaking work. It can take up to 10 years just to develop a new variety of soybean. It can take longer than that to perform certain basic research studies and maybe even then the answers cannot be sent directly to the farm.

Some research administrators are a little pessimistic when it comes to the future of agriculture. They feel that most of the big breakthroughs have already been made – that there isn't another hybrid corn lurking around the research corner. And yet things keep happening that give hope. Researchers do find answers that make crops more productive and help the consumer hold the line on food prices.

The research administrators through their various organizations are telling the public of the need for greater investment in the whole agricultural research institution. They feel that the manpower and facilities dedicated to this end are being badly eroded and that the result somewhere down the line will be reduced food supplies, higher food prices, and ultimately hunger. That's a long-term outlook, but it's probably a realistic one when you look at the population demands, the steadily dwindling farm base, and the skyrocketing farm production costs.

Breakthroughs in agricultural research for the most part aren't dramatic. They're little successes that add to other little successes that eventually improve a process. A new soybean variety doesn't revolutionize agriculture but it does make it more productive. A new tillage technique such as no-till doesn't increase yields but it does reduce fuel consumption. And the seemingly meaningless basic research that means little or nothing to everyone but the researcher when carried to its conclusion adds one more block to a foundation that eventually becomes a breakthrough.

And not all that needs to be known about agriculture is known by any means. Look around at the way our food is produced now compared to 50 years ago and then try to think ahead 50 years. It will take a few breakthroughs and some gradual progress to keep us adequately fed. And that says nothing about the pressures coming from the environmentalists, the land developers and others who have impact on farm productivity.

That's why the researchers keep looking and once in a while they find something. For instance, a researcher in Michigan thinks he has some plants that are toxic to other plants. By proper selection and management he believes these plant killers could take over some of the work of weed control chemicals. In fact, this Michigan State University horticulturist, Al Putnam, is already doing field trials with cover crops that he thinks will help control weeds in subsequent economic crops.

So far he's singled out two varieties of sorghum and one of sudan grass that seem to have this yet unidentified natural weed killer. He's found that by planting these cover crops and then killing them with chemicals or allowing them to winterkill and then planting other crops in the residue, he's able to get as high as 95 per cent effective weed control with certain weeds. And he says, without being overly optimistic, that within two or three years enough will be known so that this natural herbicide can be used commercially.

To give you some idea of the time frame of agricultural research, Putnam's work goes back more than half a century to earlier work done by crop scientists in the area of "soil sickness". At that time researchers became aware that certain plants had toxic effects on certain other plants, and that somehow this poison seemed to be transmitted through the soil. Building on these discoveries the horticulturist was able to identify some of these toxic crops. He then set about finding what plants were compatible with them and what plants were not. Out of this came the production pattern of planting toxic plants as cover crops.

Putnam believes that more research is required to find out exactly what weeds are being controlled and how to improve the accuracy of the dosage. So far his natural weed killers' effectiveness ranges between 65 and 95 per cent. He also thinks it's unlikely that researchers will ever find one natural herbicide that will control the broad spectrum of weeds that trouble farmers. Therefore he thinks they will be just part of an arsenal of weed control weapons. That includes everything from crop rotation to changing chemicals to the use of natural weed killers.

That's just one example of agricultural research that's in progress right now. Maybe to some it seems silly, maybe even a waste of money. But when you look at the potential, the millions of dollars that it could save and the environmental concern it could solve, its impact is far-reaching. Maybe it's not as dramatic as hybrid corn but it certainly has the economic potential.

# Moul named to ag post

HARRISBURG — Donald R. Moul, 51, of Abbottstown R1, Adams County, has been appointed Director of the State Agriculture Department's Bureau of Dog Law Enforcement, according to Agriculture Secretary Penrose Hallowell. Moul assumed his duties on May 9.

As Director of the Bureau of Dog Law Enforcement, Moul will supervise the work of 75 employees in administering the Pennsylvania Dog Law of 1965. Under the Dog Law, the bureau is responsible for licensing, control, sale and transportation of dogs; kennel inspections; and reimbursements to livestock and poultry owners for damage caused by dogs.

"Don Moul brings to this post a wealth of experience in the problems of dog control, as a local government official, as a farmer and as a sportsman," Hallowell said. "I am pleased that he has accepted this appointment, and I am sure he will be a definite asset not only in our regulatory efforts, but also in educating pet owners on their responsibilities."

Moul, who is executive director of the International Trotting and Pacing Association, owns and manages a horse breeding farm. He serves as the editor of the Trottingbred Magazine.

Moul is active in both the Adamas County Farmers Association and the Adams County Fish and Game Commission.

have a nice weekend...