

Farm Business News

Pioneer keeping 'Queen Alfalfa' on throne

BY DICK ANGLESTEIN
MOUNTVILLE — Alfalfa is still queen of the forages.

And Pioneer aims to keep her on that throne.

That was the gist of a field day held Tuesday at the alfalfa research center of Pioneer Hi-Bred International, Inc. on the Guy Eshelman farm southeast of Mountville.

Pioneer research and sales personnel outlined the company's all-out commitment to a continuing nationwide effort at genetic improvement that literally stretches from coast to coast.

The Lancaster County research center, opened in 1979, is just one of seven such facilities across the country which are working toward some of the greatest plant breeding improvements since early European colonists brought the plant to this country under the name of lucerne.

"We've been in the alfalfa seed business for 20 years, but it's only been in the past three or four that Pioneer has embarked on this all-out commitment," Vance York, coordinator for alfalfa and wheat research at the Tipton, Ind. headquarters for Pioneer, said.

"We've not only established these seven research facilities in different parts of the country, but Pioneer has increased its seed production capacity, too."

York went on to explain the importance of genetic improvement to boost forage yield by showing that just one more bale of

hay per acre per cutting can amount to \$120 for the alfalfa grower.

On display at the field day were two mobile forage comparison scales which can pull into a farmer's field, cut a short swath and in a matter of minutes show what the yield will be in tons per acre.

"These machines can really help the farmer in comparing the performance of one variety against another and showing how much better a yield can be expected," York said.

One of the machines is being used at the Lancaster County research center.

Following introductory remarks and the showing of a movie explaining Pioneer alfalfa seed research, visiting farmers, extension personnel and vo-ag teachers toured the research plots.

In the clone nursery area, Ed Pointer, research station manager, explained how individual plants are deliberately subjected to various diseases to determine their individual degree of resistance.

"One of the disease studies here is anthracnose," Pointer said.

"Each of these plants have been injected in the stem with anthracnose inoculant. We're deliberately giving the plant the disease to see if it will survive."

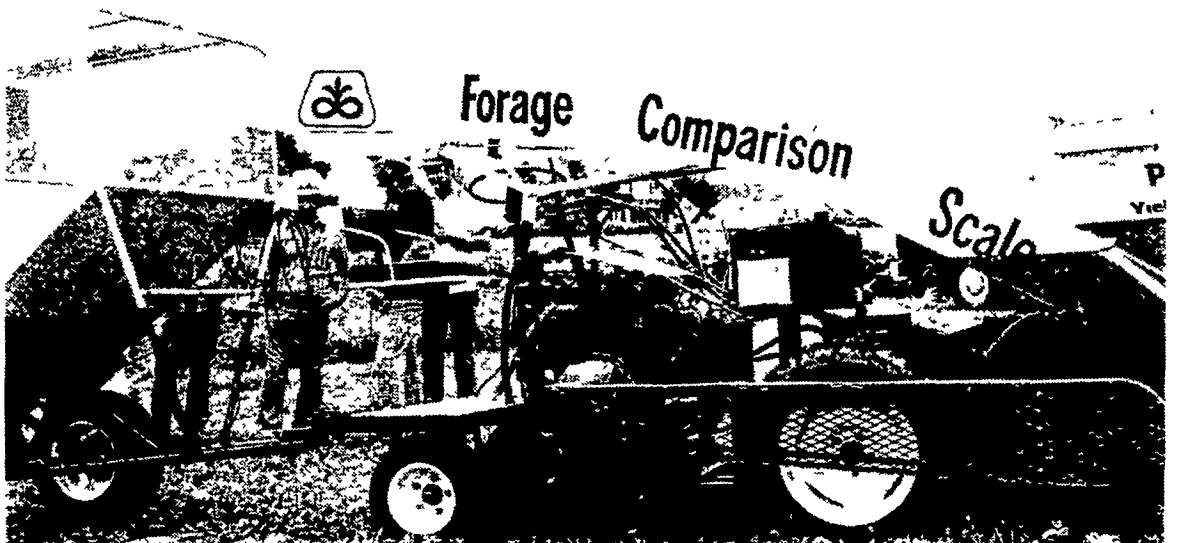
Plants that come through the disease tests are then sent to California for seed yield tests.

"We look for forage yield here," Pointer said.



With variety test plots in foreground, Vance York, of the Pioneer headquarters in Tipton, Ind., explains continuing work with approved varieties being marketed and those still in experimental stage to group of farmers at

alfalfa field day. York cited #531 as the top finisher in Michigan State and Ohio State tests, as well as the leading variety averaged among three Pennsylvania locations.



This mobile Forage Comparison Scales, which is being used at the Pioneer alfalfa research center in Lancaster County, can pull

into a field, cut a short swath and within minutes tell the expected yield in tons per acre.

"Out West, we check the seed yield and then plants which combine a good yield for both are selected.

Bacteria wilt and crown rot are other diseases which are studied, too.

In progeny row tests, the plants' capability to produce good offspring is studied.

"We want alfalfa that's tall, wide and dark green," Pointer said.

Each of the progeny rows are cut separately to be checked not only for yield, but disease response and insect damage. Both fast and slow recovery types are studied.

In the variety test plots, York explained that current research efforts are directed at bringing the fast and slow recovery or early maturing and longer term varieties closer together concerning how long they will last.

One experimental variety, which is some three or four years down the road before commercial introduction, is being developed for resistance to verticillium wilt, which is a problem in the West.

Three varieties now on the market continue to be studied in Lancaster County. Number 531 has emerged in the top spot in Michigan State and Ohio State tests and an average of three Pennsylvania locations also puts it on top.

"It is an outstanding yielder with resistance to anthracnose," York said.

Number 524, a slow recovery variety, has excellent tolerance to leaf hopper, York said.

A new variety for next year will be Number 526, a fall dormant, which has the potential for higher yield but not as good tolerance to the leaf hopper.

Rhizobia tests, involving Pioneer's seed inoculant, are also under way near Mountville. The inoculant is being produced just for Pioneer seed and it has been found that one strain works on

different varieties.

Yield tests, using the in-field forage comparison scales, are being conducted over a three-year period at the research station.

Wayne introduces milk replacer

CHICAGO, IL. — "4th Day Milk Replacer," a high fat feed product for newborn dairy calves, has been introduced by Wayne Feeds. The product is fed after the calf receives colostrum milk from its dam for the first three days of the calf's life.

New "4th Day Milk Replacer" contains 20% fat, 20% all-milk protein and an effective antibiotic combination.

"More and more of our dairy feed customers are asking for a higher fat content product," explained Gary Hartnell, Wayne's Dairy Research Specialist who developed the new milk replacer. The combination of ingredients used resulted in fewer treatment days in newborn calves.

The new milk replacer is recommended for use in dairy herds that have had problems with baby calf scours and for calves fed outside in calf hutches during the winter, according to David Fox, Wayne Marketing Manager/Dairy.

Neomycin base and oxytetracycline, the two active drug ingredients, aid in the prevention of bacterial diarrhea, or scours. In addition, "4th Day

Milk Replacer" contains not less than 15,000 IU/lb. of vitamin A and not less than 3,000 IU/lb. of vitamin D3.

In research conducted by Wayne Feeds, newborn calves fed "4th Day Milk Replacer" for five weeks had 23% fewer treatment days than those fed a non-medicated all-milk protein milk replacer, Hartnell reported.

"A new manufacturing process makes '4th Day' easier to mix, dissolve more quickly and completely, and stay in suspension longer," he added.

To introduce "4th Day Milk Replacer," thousands of dairy families are being mailed packages containing (1) a cigar labeled "It's a girl," announcing the "birth" of a new product to be used after the birth of a heifer calf; (2) a silk rose (another symbol of a birth) plus a redemption offer for an additional 11 roses, and (3) discount coupons for a purchase of "4th Day Milk Replacer."

"4th Day Milk Replacer" is marketed by the Wayne Feed Division of Continental Grain Company through Wayne Dealers in the eastern two-thirds of the U.S.



Ed Pointer, manager of the Pioneer alfalfa research center near Mountville, discusses results of anthracnose studies conducted in clone plant nursery.