Holstein sale

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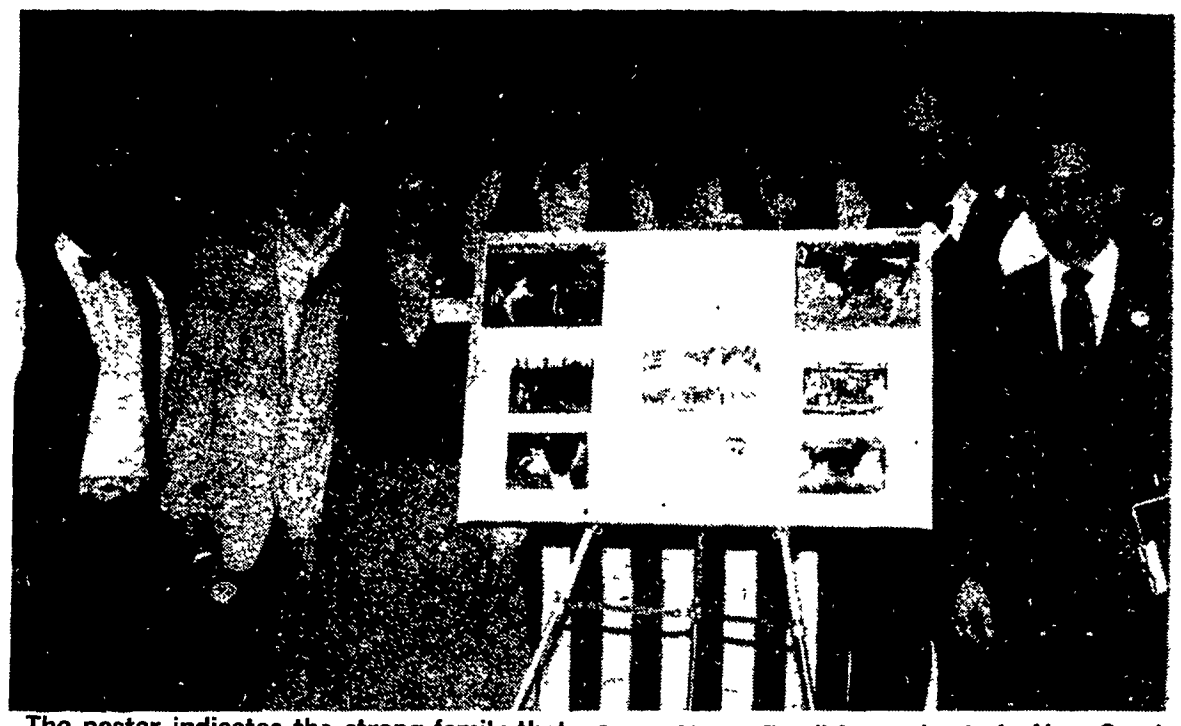
PHA director of sale Michael Weimer paid $11,500 for a bred heifer consigned by Lester Poust, Muncy. Sired by Plushanski Persuader, the heifer is out of Mun-Cre Elevation Lasso, Excellent 94-2E, who boasts a top record of 30,302 pounds of milk and 1,208 pounds of fat as a 5-year-old. The heifer is due in September to Glendell Arlinda Chief.

Alan McCauley and Alvin Stoltzfus of Elizabethtown consigned an open yearling which sold for $9,500. The Valiant daughter, Dunwood-ND Cola-ET, is out of Mar-Elv Dividend Coco, an Excellent Performer daughter. The Gold Medal Dam completed her best record of 26,340 pounds of milk and 1,030 pounds of fat.

Martinsburg breeder Barry England paid $7,000 for a fresh heifer consigned by Steve Hoover also of Martinsburg. England's purchase, Silverwood GAC Lady is sired by Glendell and out of a Very Good Paclamar Master daughter.

Prior to the sale, the crowd was treated to rousing chorus of barbershop quartet featuring PHA membership director Doug Hershey, Chub Hostetter, Jeff and Paul Miller.



The poster indicates the strong family that will produce the unborn embryo that Dick Clark, far right, purchased for American Breeder Service. The $17,500 embryo was consigned by John and Karen Gilliland, left of poster. Gilliland's consignment is sired by Sweet Haven Tradition and out of a Very Good Bootmaker. The consignors and buyer are joined by, from left to right: auctioneers Art Kling, Charles and Horace Backus and Doty Remsburg, and William Nichol, PHA executive secretary.

The top selling heifer Mun-Cre Persuader Lilly, was purchased by Michael Weimer, top row center, for $11,500. Sired by Plushanski Persuader and out of Mun-Cre Elevation Lasso, Ex 94-2E, the heifer is due to calve in September to Glendell Arlinda Chief. Accompanying Weimer in the sale ring are: bottom row from left to right: William, executive secretary of PHA, Penrose Hallowell, State agriculture secretary, Charlene Rohrer, state dairy princess, Lester Poust, consignor, Alan McCauley, Bob Kauffman and Doty Remsburg, auctioneers and Elvin Hess, leadsman. Back row, Charles Backus, Weimer and Horace Backus.

The convention sale had its lighter moments, such as this crooning quartet which kicked off the bidding and buying. From left to right the group includes Chub Hostetter, Doug Hershey, Jeff Miller and Paul Miller.

Researchers study soybean plant hormone

ST. LOUIS, Mo. — "We want to look under the hood," said University of Minnesota researcher William A. Brun. "You can't sit along the side of the road and figure out what makes automobiles tick. You have to look under the hood.

Brun was explaing the basic research approach he and colleague Mark L. Brenner are taking to study what Brun calls the traffic patterns of a growth hormone called abscisic acid which is found in soybean plants.

Brun of the University's Department of Agronomy and Plant Genetics, and Brenner of the Department of Horticultural Science and Landscape Architecture are collaborating on one phase of a Minnesota Agricultural Experiment Station project which ultimately seeks to determine when and to what degree physiological yield limitations are imposed on the soybean plant by the hormones that the plant produces.

The American Soybean Association is contributing $9,570 to purchase supplies and equipment. Monsanto Agricultural Products Co. will provide $39,156 to cover personnel for the abscisic acid research which will run two years.

Abscisic acid, or ABA, a naturally occurring plant hormone, is considered to inhibit growth in a plant. ABA causes closure of the stomates, the very small openings on the surface of the leaf. The stomates need to be open to carry on photosynthesis, which is perhaps the most process on earth.

Scientists refer to a leaf as a source, a place where something originates. A sink is where something is utilized. In this case, the carbohydrates or sugars produced by photosynthesis originate in the leaves and flow to the sink, which is usually the developing seed.

"We know from our previous research that ABA travels from the leaf, where it is produced, to the seed," Brun said, "We want to know if ABA travels passively with the sugars — just going along for the ride — or if has its own inside track."

"If ABA accumulates in the leaf, in effect the factory shuts down," he added. "If you have filling pods that relieve the leaves of some of the ABA, the leaves can carry on photosynthesis longer.

"So far we have not investigated whether other actively growing sinks such as developing leaves, root tips, axillary buds, or nodules, which import large quantities of carbohydrate, may also import ABA."

While ABA functions as an inhibitor within the leaf, causing stomatal closure, Brun said ABA may have both inhibitory and promotive effects in developing seeds and other sink tissues.

"More knowledge about ABA metabolism in soybean sink tissues may provide important insights into the regulation of soybean sink activity," he said.

The researchers also want to find out what various environmental stresses, such as water stress or temperature stress, and applications of chemical growth regulators will do to ABA's traffic patterns.

This work, Brun said, will broaden understanding of the hormonal traffic patterns in the plant as a whole rather than just between the leaves and the fruit.

Soybeans respond to liming

FAIRFAX, Va. — Most legumes are very sensitive to soil acidity. Alfalfa soils should be limed to a pH of 6.5 or higher. Clovers and birdsfoot trefoil are a little more tolerant of soil acidity, but they respond to a sound liming program.

Soybeans are one crop that too often has suffered by a neglect of liming. Soybeans are very sensitive to low pH soils, and low or mediocre yields often result from an inadequate liming program.

Soybeans grown in rotation with corn can be a particular problem. The heavy amounts of nitrogen applied for the corn crop are a major cause of soil acidity. In fact, for each pound of nitrogen applied, about four pounds of limestone are needed to neutralize the acidity formed.

If corn is ground for two or three years before planting soybeans, a large amount of acidity is formed. If lime is not applied, the following soybean crop will suffer from soil acidity.

You should be particularly aware of lime needs for soybeans at the time of planting corn the year before going into soybeans. Even though the soil pH may be high enough for corn, it may be too low for soybeans. Lime applied at this time can have a big effect on soybean yields.

As a last report, if the soil is acid and it is time to plant soybeans, try drilling about 500 pounds per acre of limestone with the beans, recommends the National Limestone Institute. This could increase yields by several bushels per acre. However, the best practice is a sound liming program well in advance of planting soybeans.