

New mushroom strains are rated superior

UNIVERSITY PARK - New achievements in mushroom research - supporting a Pennsylvania crop valued at \$160,000,000 annually - were reported recently by scientists of the Agricultural Experiment Station at The Pennsylvania State University.

Current research has developed nine improved strains of the cultivated brown mushrooms (*Agaricus bisporus*). The new strains are rated superior to the best two commercial strains of brown mushrooms, according to Dr. Daniel J. Royse, assistant professor of plant pathology.

The results come from long-term experiments which have contributed to increased yields by Pennsylvania growers producing 57 per cent of the nation's mushroom crop.

"Best estimates indicate a 15 per cent yield increase," Dr. Royse claimed. "This has already resulted in expanded commercial production of about 3 million pounds" which would "have a wholesale value of \$2,000,000," he affirmed.

In production tests of 16 off-white strains, three have emerged as superior to presently used commercial

strains and are now available to the mushroom industry, he said. In addition to total yield, valuable data was taken on earliness of growth, pattern of yield, average size, and surface features such as scales on the cap. Off-white mushrooms are larger and have a better shelf life on the fresh market than white strains, he indicated.

Two major accomplishments on maintenance of mushroom cultures evolved from this project, Dr. Royse said. First, Penn Staters found that stock cultures of commercial mushrooms can be frozen in liquid nitrogen and remain stable for at least five years—compared to the same culture maintained by transferring plugs of fungus tissues to fresh culture medium every 60 days.

"This could result in substantial saving of labor and materials while helping to assure the stability of valuable stock cultures used by the mushroom spawn-making industry of Pennsylvania," he stated.

In the second development, four mushroom strains—developed at Penn State and used widely in the industry—were found to lose 2 per cent less weight after

processing than present commercial varieties.

Since about 60 per cent of the U. S. mushroom crop is processed, reduction of shrinkage through genetic selection can be very beneficial, it was noted. In fact, said Dr. Royse, use of Penn State's genetic selection for Pennsylvania's 220,000,000 pound annual mushroom crop could mean a saving of nearly 2,640,000 pounds annually.

As part of the project, nearly 1,500 different mushroom strains and microorganisms associated with a mushroom crop are maintained on agar or grain media with regular tissue transfer every 60 days. This collection is the best of its kind in the country, and perhaps in the world, Dr. Royse claimed. More than 3300 culture tubes were provided over the past four years to commercial and research laboratories in response to specific requests.

These stock cultures form the basis for more than half of all mushrooms produced commercially in the United States and Canada, it was reported, as well as substantial quantities in a dozer other countries.

BEAT THE PRICE INCREASE EFFECTIVE MARCH 1st!

(Approximate Average 10% Increase)

IF IT'S HUNTER..  IT'S A HONEY!

HUNTER HEAVY DUTY GALVANIZED BUCKET ELEVATORS

CAPACITIES FROM 500 BU. PER HR. TO 25,000 BU. PER HR. AND UP TO 160 FT. DISCHARGE HEIGHT AT DISCOUNT PRICES

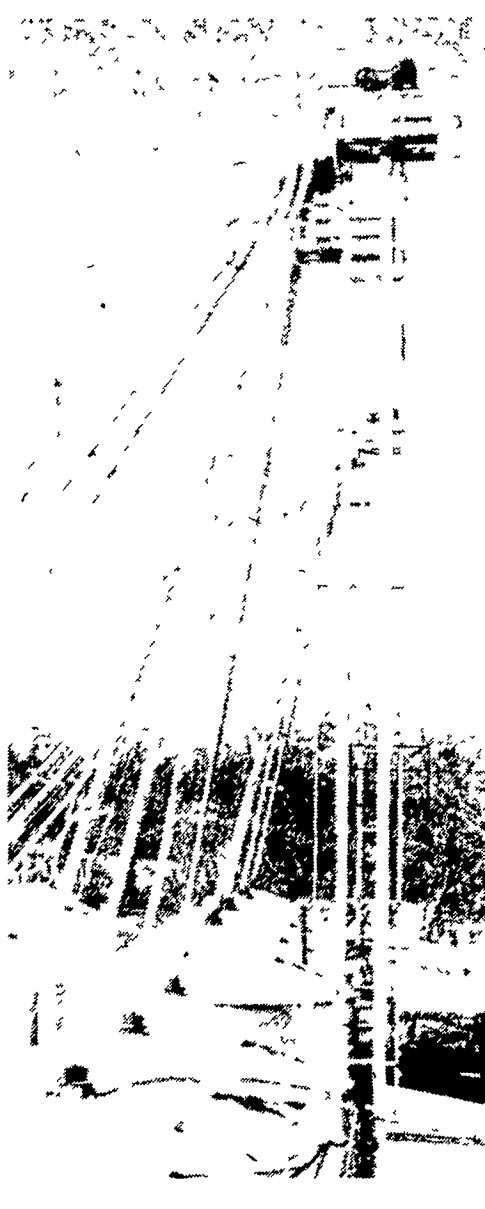
DISCOUNT PRICES ARE ONLY GOOD TILL FEB. 28, 1978 ORDER NOW

EXAMPLE: 1600 Bu./Hr. 45 Ft. High Discharge ONLY \$2446⁰⁰ F.O.B. SAME DISCOUNT ON ALL SIZES

ORDERS MUST BE IN OFFICE BY FEB. 26, 1979.

INCLUDES

- HEAD SECTION - 14 ga. galv. steel huck bolted, NO WELDING, large crowned pulley, commercial pillow block and stress shaft, 3 inspection doors, completely dust and weather tight.
- LEGGING - 14 ga. exclusive beading process for ultimate strength, dual type trunking, jugged for perfect alignment.
- BELTING - Exclusive Hunter orange PVC non-stretch, static and fire resistant.
- HONEY BUCKETS - Exclusive orange, static resistant, plastic buckets with special bolts and nuts.
- BOOT - 10 ga. galv. steel huck bolted for double strength, large pulley w/ oversized shaft and commercial take-up bearings, hopper, 2 inspection doors.
- SPEED REDUCER DRIVE - Gears and roller bearings run in oil; belts, pulleys, motor mount, belt tightner.
- ELECTRIC MOTOR - Total enclosed ball bearing, capacitor start.



Financing arranged through ASCS, Production Credit, leasing companies or your local bank. Call or write for quotation on complete grain handling, drying and storage system, feed grinding, mixing and processing systems, bulk tank metering, weighing and handling equipment

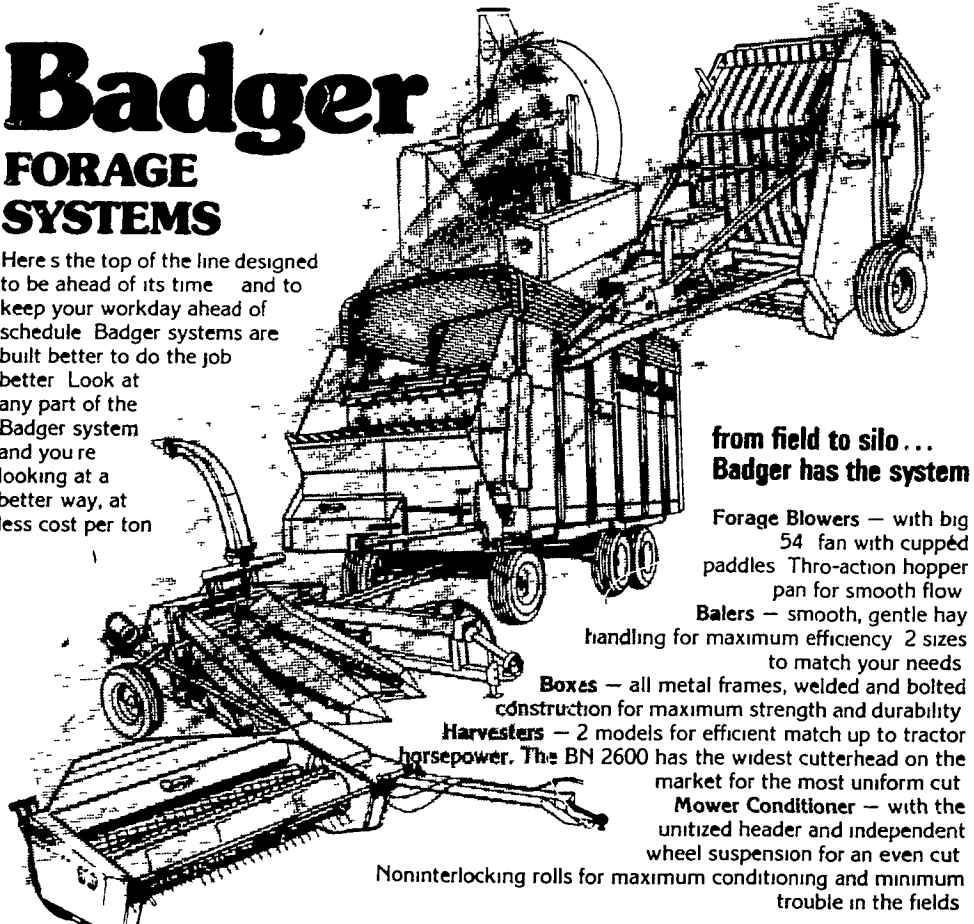
★ Top Pa. Distributor for 1977 & 78 awarded by G.S.I.

MARTIN DISTRIBUTORS, INC.

R1, LEBANON, PA. 17042
PHONE: 717-866-4906 or 866-4555

Badger FORAGE SYSTEMS

Here's the top of the line designed to be ahead of its time and to keep your workday ahead of schedule. Badger systems are built better to do the job better. Look at any part of the Badger system and you're looking at a better way, at less cost per ton.



from field to silo... Badger has the system

Forage Blowers - with big 54 fan with cupped paddles Thru-action hopper pan for smooth flow

Balers - smooth, gentle hay handling for maximum efficiency 2 sizes to match your needs

Boxes - all metal frames, welded and bolted construction for maximum strength and durability

Harvesters - 2 models for efficient match up to tractor horsepower. The BN 2600 has the widest cutterhead on the market for the most uniform cut

Mower Conditioner - with the unitized header and independent wheel suspension for an even cut Noninterlocking rolls for maximum conditioning and minimum trouble in the fields



the people that care... about your farm, your business and you!

GRUMMELLI'S FARM SERVICE

Mechanics Grove
Quarryville, PA
Ph. (717) 786-7318

ROY O. CHRISTMAN

RD 1, Box 119
Hamburg, PA
Ph (215) 562-7218
488-1904

HEISEY FARM EQUIPMENT INC.

RD 1
Jonestown, PA
Ph. (717) 865-4526

PIKEVILLE EQUIPMENT INC.

RD 2
Oley, PA
Ph (215) 987-6277

CECIL DAIRY SERVICE

RD 1 Rt 274
1/2 Mi South Rising Sun, MD
Ph (301) 658-6923

SHOW-EASE STALL CO.

523 Willow Rd
Lancaster, PA
Ph (717) 299-2536

ALLEN ZEIGLER

RR 1
Leighton, PA 18235
Phone: (717) 386-4593

McMILLEN BROS.

RD 1
Loysville, PA
Ph (717) 789-3961

HUTTON FARM EQUIPMENT

Mahaffey, PA 15757
Ph. 814-277-5504

LLOYD E. KREIDER

RD 1
Cochranville, PA
Ph. (215) 932-4700