

Automatic Feeder Designed For Stall-Type Dairy Barns

Mechanized equipment to feed both grain and silage to dairy cows in stall barns has been developed at The Pennsylvania State University. The equipment distributes each type of feed according to the animal's production needs.

The equipment was developed to reduce the burdensome chores and labor needed for feeding cattle in stall barn dairy operations. H.D. Bartlett, professor of agricultural engineering, and A.E. Branding, assistant professor of dairy science, headed up the design and testing. They observe that continued use of stall barns is predicted for most of Pennsylvania's dairy cows.

A conveyor chain with flights was designed to transport the grain and silage. The feed distribution system was suspended from the barn ceiling. Travel speed of the conveyor was set to handle output from a silo unloader delivering about 100 pounds of silage per minute.

Openings in the bottom of the conveyor trough deliver feed to metering bins for individual cows. A sliding gate assembly was developed to direct feed flow into either silage or grain bins.

Feeding was arranged in pairs of stalls. Slide assemblies for each pair of stalls were coupled together with steel rods and a cable assembly. In this way the sliding gates for all stalls could be switched for silage or grain distribution from a central location near the feed storage area.

The amount of feed which each bin holds is adjusted by changing the length of the bin. To accomplish this adjustment, bins are fabricated in two sections which telescope.

The length of the top section of the bin is designed to hold the minimum amount of feedstuff to be fed at one time. The amount per feeding can be increased by simply increasing the length of the bin.

Amount of feed delivered to each bin can be adjusted according to an individual cow's needs by varying the length of the separate bins according to predetermined volume-weight relationship of the respective feedstuff.

Each bin has a scale to aid in adjusting the bin length for a

selected amount of feed. A quick-coupling device is used to lock the two telescoping sections of each bin in place at the selected feed rate setting. This permits easy adjustment of feed bin lengths as feed requirements change during the lactation period.

Each bin is equipped with a shut-off gate controlled from a

central location near the feed storage area. To operate the system, the shut-off gates are closed and feed enters all bins until they are filled. When all bins are filled with a particular type of feed, a cable is activated to open the gates at the bottom of each bin, allowing feed to discharge into the manger in

front of each cow.

In the studies, all feed bins in a 40-cow installation averaged five minutes to fill with grain, 25 minutes for corn silage, and 35 minutes for haylage, which is hay crop silage with about 50 per cent moisture.

With the mechanical feeder supplied directly from a silo unloader or grain bin, the only

labor required is that of switching from one type of feedstuff to another and operating the feed bin gates.

In addition to distributing each type of feed separately, good results have been obtained with mixtures ranging from 20 per cent grain and 80 per cent silage to 60 per cent grain and 40 per cent silage.

HORSE & MULE SALE

WEDNESDAY, MARCH 21, 12 Noon

2 miles East of Intercourse along Route 340.

Load of Kentucky Work Horses and Mules, Saddle and Driving Horses, 8 Draft Horses, 1 Sorrel Belgian Stud, 6 yr. 1800 lbs., broke; 1 Reg. Black Walking Gelding, Broke, 3 pair mules, 10 head of Draft Horses from New Jersey, Load of Standardbred Horses from New York State

Local Horses.

Horses hitched 9:30 A.M. Tack 11 A.M. Horses 12 Noon

Paul Z. Martin
717-354-6671

768-8108

MARTIN AUCTIONEERS

Next Sale April 4, 12 Noon
Special Ky. Saddle & Driving Horse Sale
Monday Evening April 16-6 P.M.

PUBLIC AUCTION

75 REGISTERED GUERNSEYS COMPLETE LINE OF FARM MACHINERY AND DAIRY EQUIPMENT

EARLEVILLE, CECIL COUNTY, MARYLAND

SATURDAY - MARCH 31, 1973 - 10:00 A.M.

Property Estate of James Stanley Frazer
Doris P. Scott, Executor, Elkton, Md.
Joe Walls, Manager
301-275-5915

Machinery Selling At 10:00 A.M.

Ford 2000 Diesel Tractor, Ford mower, Pittsburg 3-bottom plows, Manure spreader, Flat wagon, Elevator, Hay crimper, Scraper blade, Roto-Baler, Lime spreader, All Crop drill, Disc, Cultipacker, JD 2-row corn planter, Portable generator, etc.

Milk Equip : Mojonner 500 gal vac. tank, Auto-washer, Dumping station, 4 Surge milkers, Surge 30 plus vacuum pump, Surge 4-unit pump.

Joe Rudnick, Auctioneer

Lunch Available

Dairy Herd Sold At 12:30 P.M.

75 HEAD-41 COWS-7 BRED HEIFERS-27 OPEN HEIFERS & CALVES

TB & BANGS ACCREDITED - VACCINATED

The herd was started by Mr. Frazer 59 years ago. Top Langwater bulls were used in the early years and recently the best plus proven AI sires. For the past 13 years the herd has been capably managed by Joe Walls.

Rolling DHIA Average on 35 cows is 10282 milk, 512 fat This is a young, good uddered herd. 6 fresh in Feb., 7 due in March, 3-April, 2-June, 8-July, 9-August, 7-Sept., 4-Oct.

DIRECTIONS TO FARM:

From North - Go South on Rt. 213 from Route 40 at Elkton-Cross the Bohemia River turn right through Hacks Point - continue past Bohemia Country Club. Take 1st Right to westerly end of Veazey Neck.

From South - From Earleville go toward Hacks Point take 2nd Black top road to left at St. Stephens Church.

SALE MANAGED BY THE MERRYMAN COMPANY

Sparks, Md 21152

JOHN B. MERRYMAN - Auctioneer - Phone 301-771-4624

ABSOLUTE CONSIGNMENT AUCTION

9TH ANNUAL ALL-DAY FARM MACHINERY SALE

FRIDAY, MARCH 30, 1973

at 10:00 A.M.

Location: One (1) mile north of Downingtown Exit of Pennsylvania Turnpike on Route No. 100 Eagle, Chester County, Pa.

TWENTY-FIVE (25) tractors of all makes & models; Farm Machinery of all descriptions; garden tractors and lawn equipment; wagon loads of new & used tools & accessories.

CONSIGNMENTS ACCEPTED—MUST BE SOLD TO THE HIGHEST BIDDER!

WHITFORD SALES COMPANY

L. Robert Frame, Auctioneer
Box 128, Exton, Pa. 19341
Phone: 215-363-7379

By the order of:

EAGLE MACHINERY COMPANY

Phone: 215-458-5326

"Chester Countys' FOREMOST Auction Company"

PUBLIC SALE

FARM MACHINERY, TRUCK, AND TOOLS

OF The Late Earl L. Gipe

THURSDAY, MAR. 29, 1973

at 10:00 A.M. Sharp

Located along Pa. Rt. 425 approx. 6 miles off Rt. 74 and about 2 miles east of New Bridgeville or about 4 miles south of Craley, in York, Co., Pa. (First farm past St. Luke Church. Watch for arrows).

4 Tractors Farm Machinery 4 Tractors

J.D. 2520 diesel, fully equipped, 3 pt. hitch, roll-gard, and only 1400 hrs.; A.C. WD 45 tractor; A.C. model B with plow & cultivators; Farmall Cub tractor with plow & cultivators, like new; J.D. F125 3-16 in. bottom plow; J.D. #35 manure loader; Massey Harris 10 ft. self propelled combine; Ford 2 row mounted corn picker; J.D. #24T pickup baler with bale thrower, like new; J.D. BW 12 ft. transport disc, like new; cultipacker; spring tooth harrow; J.D. #5 7 ft. mower; J.D. hay conditioner; J.D. #246 2 row 3 pt. hitch corn planter; J.D. 2 row front mounted cultivator; J.D. 3 pt. hook field sprayer; Cross 30 ft. grain & bale elevator; Smoker grain bin on Oliver heavy duty running gears; Ontario 14 disc grain drill; New Idea 4 bar side delivery rake; 3 pt. hook tool bar; 2 two wheel trailers; 3 rubber tire wagons with hay racks for bale thrower; 4 wheel manure spreader; New Idea single row transplanter; 2 lg. 2 wheel trailer type tobacco wagons; tobacco hoer; tobacco baler; roll of tobacco paper; 5 pr. tobacco cutters; thousands of tobacco lathe; tobacco jacks for field drying; Brady stalk cutter; Iron Age single row potato planter; potato plow; furrow plow; PTO tractor seeder; portable air compressor, like new; new Homelite chain saw; David Bradley chain saw; lots of wooden wagon wheels; lg. pile of harness & collars; platform scales; water tank; ext. ladder; corn sheller; pile of new sawed lumber; spring wagon box; lg. wagon load of small tools; lg. pile of bricks; log chains; 38 in. tractor chains; piles of iron; junk machinery; oil drums; bucket & hand type grease guns; new mold boards & plow shears; and many items too numerous to mention.

Int. 1956 truck with 14 ft. bed & 4 ft. grain sides in good condition.

Terms: cash or approved check

Mrs. Earl Gipe, owner
Felton, Pa. R.D. #2

Robert L. Sechrist, auctioneer Ph. 382-4379
John Hope Anderson, clerk

Refreshments by New Bridgeville Fire Co.

Not responsible for accidents

Rabid Cat Reported

Only one case of rabies was reported in Pennsylvania during February, 1973, according to Pennsylvania Secretary of Agriculture Jim McHale.

The rabid animal was a cat from Greene County and was diagnosed as positive in the Department of Animal Industry's diagnostic lab in Summerdale, across the river from Harrisburg.

Because of the nature of the disease, the number of positive rabies cases diagnosed takes a downward trend in the winter months when animals are less active. Only two cases were reported in January 1973.



"You usually pay the most for the things you get for nothing."—Dale Holdridge, Langford (S. Dak.) Bugle.