

Natural air drying

(Continued from Page 92)

and results in a better quality product. While that may be true, there are some doubts that his program can be used to its fullest ad-

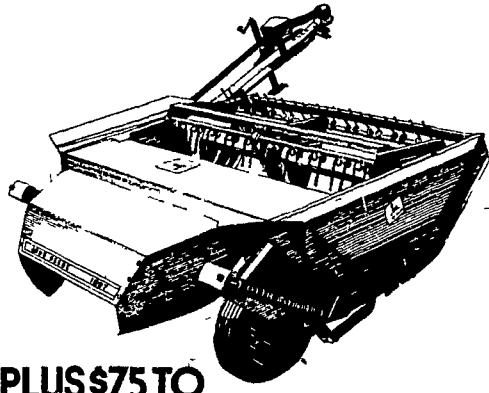
vantage in the humid Northeast. Furthermore, there are no university studies available to back up all of Steffen's claims.

Present along with him at



JOHN DEERE COMPANY

SAVE BIG DOLLARS ON HAY EQUIPMENT ORDERED BEFORE FEBRUARY 28...



PLUS \$75 TO \$900 MORE IN JOHN DEERE DOLLAR BUYING POWER

Order any of the John Deere Hay Tools listed here before the end of February. Get our best deal on your hay tool choice. The exact model and size you need with just the options you want. Top value for your trade-in. Waiver of finance charge until '79 use season. Plus from \$75 to \$900 in John Deere dollars you can exchange for our goods or services. Come see us soon!

BUYER BONUS IN JOHN DEERE DOLLARS FOR ORDERS SIGNED THROUGH

EQUIPMENT FEB. 28, 1979

BALERS:

336	\$200
346 and 410	\$300
466 and 510	\$400

MOWER/CONDITIONERS:

1207 and 1209	\$250
1214	\$350
1380	\$400

MOWERS:

350 and 450	\$75
-------------	------

RAKES:

567, 650 and 660	\$75
670 and 671	\$100

CHOPPER:

16A	\$175
-----	-------

SHREDDER:

27	\$200
----	-------

WINDROWERS:

800	\$450
830	\$600
2280	\$900

This offer is subject to equipment availability

ADAMSTOWN EQUIPMENT, INC.

Mohnton, PA
215-484-4391



SMITH'S IMPLEMENTS, INC.

Mercersburg, PA
717-328-2244

LANDIS BROS., INC. JOHNSON BROS.

Lancaster, PA Kresgeville, PA
717-291-1046 215-681-4766

EVERGREEN TRACTOR CO., INC.

Lebanon, PA
717-272-4641

the Bird-in-Hand meeting was Milford Mast of Elverson, a Chester County farmer who represents Steffen's product in southeastern Pennsylvania.

Steffen explains his system as working on simple principles. Because it uses no supplementary, heated air, he calls it "chill-curing," and the name of his system is Harvestall. He defends the principle of using natural air, claiming that forced hot air blown through the bin can damage quality and could encourage spoilage. His reason: the hot air forced through the stored corn will take on moisture in the lower portions of the bin,

but as it moves upward, it cools and its ability to hold moisture is reduced. Hence, the air releases some of its water near the top of the bin and a moldy layer of corn could develop because of it.

Simply stated, Steffen considers his system to be parallel to the old idea of letting the air dry corn naturally in long, narrow sheds with slatted sides. No forced, heated air was necessary with those structures, and, according to Steffen, it isn't needed in modern bins either.

The physical components of the Harvestall 'Chillcuring' system are a grain bin equipped with the

Lancaster Farming, Saturday, February 10, 1979-95

special, perforated floor, a high air flow fan, infra-red lamps in a circular configuration in the forced air space beneath the floor, and an automatic control system for activating those lamps.

The key, he says, is air movement. Acknowledging that natural air movements can't do it, he says the trick is to force enough air through the stored crop. But the air isn't heated. It's regular outside air. Even though the cold air of winter doesn't have much moisture holding capacity, Steffen claims it's sufficient on most days. If the air is already pretty well saturated with moisture, (i.e. rainy weather, fog, etc.) then infrared lights are used to dissipate the moisture from the air that is being used in the chill-curing process.

Steffen, who is in partnership with his brother, Vince, markets his product under the Harvestall brand name. The term "chill-curing," is a registered trade mark. Although the Harvestall Company was founded in 1958, the Steffens are only now gaining attention in the market. Higher energy prices have been partially responsible for that development. The Harvestall unit requires no fuels for heat production. Its only requirement is electricity to power one or more fans, plus a series of infrared lightbulbs.

The road to greater acceptability hasn't been without obstacles, however,

Steffen told his audience. His firm has been suspected of fraud and was under investigation for more than a year by the Minnesota Agricultural Extension Service. Steffen says he has been cleared of those allegations. A report from Minnesota, however, isn't in full agreement with everything Steffen claims.

In a newsletter from the Agricultural Extension Service of the University of Minnesota, professors D.R. Hicks, H.A. Cloud, and L.L. Hardman summarize:

"Based on research evidence and an analysis of the processes involved in the moisture content reduction of shelled corn, we conclude that a dry weight gain increase in the amount claimed by Harvestall in their 'Chillcuring' process is not possible. In fact, the research evidence indicates that when shelled corn is subjected to the environmental conditions that exist in a Harvestall 'Chillcuring' system there will be a dry weight decrease because of respiration activities of grain storage fungi existing in shelled corn.

Hicks is a professor of agronomy and plant genetics; Cloud is a professor of agricultural engineering; and Hrdman is an associate professor of agronomy and plant genetics. The three reported their findings in a newsletter dated May 1978, and it was supposedly sent out to an-

(Turn to Page 96)

NORTHAMPTON FARM BUREAU CO-OPERATIVE ASSOCIATION

TATAMY, PA

★ FEED, SEED CHEMICALS

★ LIME AND FERTILIZER CUSTOM APPLICATION

★ TEXACO PETROLEUM PRODUCTS SIMPLICITY LAWN & GARDEN EQUIPMENT

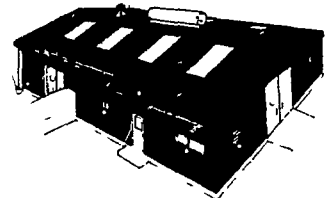
EASTON 215-258-2871



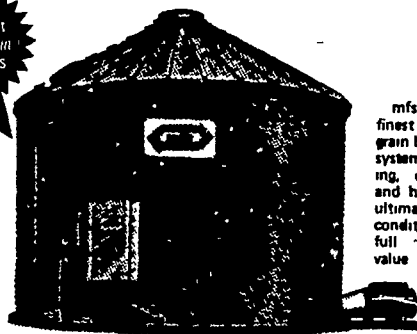
VERNON MYERS, INC.

STEEL BUILDINGS & GRAIN STORAGE

R.D. 4 - Box 845
Lebanon, Pa. 17042
Phone: (717) 867-4139



a wise investment in your future



mfs 'Stor-age' America's finest and most wanted grain bin. A "total concept" system of high speed drying, conditioning, storage and handling of grain. The ultimate in preserving grain condition and quality for full market and feeding value.

... becomes an even better investment when you can also save money in the process. And, the savings are big when you take advantage of the mfs "Stor-age" Early Order Discounts, now in effect. Order now-take delivery later-be prepared for all your future storage and drying needs. See your nearest mfs dealer for complete information and free systems planning services.

WE ALSO SPECIALIZE IN BUCKET ELEVATORS, DRYERS, AUGERS

FACTORY AUTHORIZED DISCOUNTS NOW IN EFFECT

INVEST IN GRAIN STORAGE NOW WHILE PRICES ARE AT THEIR LOWEST AND DISCOUNTS AT THEIR HIGHEST.

LARGEST DISCOUNTS EVER OFFERED!!!

1. Early Order Discount
2. Volume Discount
3. CASH Discount

SAVE \$\$\$\$\$\$\$

COMMERCIAL and AGRICULTURAL BUILDINGS
WE OFFER COMPLETE ERECTION ON ANY SIZE OR STYLE BUILDING

Mail Coupon Today!

- SEND STEEL BUILDINGS LITERATURE
- SEND GRAIN STORAGE LITERATURE

NAME _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

TELEPHONE _____

