

Wood pulp fines fed to livestock

UNIVERSITY PARK — Wood pulp fines, byproducts of making tissue paper, can partially replace the dietary energy in forage and grains normally fed to beef cattle and sheep, according to animal scientists at Penn State.

Using these wood fines in steer rations, Penn State researchers saved as much as 2.1 pounds of grain for each pound of carcass weight gain. Dr. Lowell L. Wilson, professor of animal science, termed the wood pulp fines "a suitable and inexpensive method of reducing the energy and feed costs of raising livestock."

Wood pulp fines are readily available in Northeastern Pennsylvania and

other areas of the nation where tissue paper is produced, it was reported. One major paper products company in Mehoopany, Pa., for example, generates and disposes of about 200 tons of wood pulp fines daily.

Fines have a high moisture content averaging 75 to 77 per cent moisture, it was explained. They have a granular appearance similar to soybean meal. Fines store well uncovered outdoors, provided they are not mixed with other feed ingredients or nitrogen. Fines, and rations containing over 40 per cent fines, will freeze during Winter unless protected or stored inside.

Consisting primarily of

cellulose, fines are well digested by cudchewing animals. Despite a high fiber value, they have little or no value as a roughage. Thus, some standard roughage, 10 to 12 per cent, should be included in rations containing fines, especially where lambs are fed.

The wood pulp fines have been studied thoroughly at Penn State in feeding steers and lambs for market. Heading up the experiments was Paul G. Lemieux, graduate assistant in animal industries. The results are published in the special Fall energy issue of "Science in Agriculture," the quarterly magazine of the Agricultural Experiment Station at Penn State.

Steers can be fed up to 40 per cent of the dry matter as fines with satisfactory gains and no adverse effects on carcass traits, Lemieux said. Lambs can be fed up to 66 per cent of the ration dry matter as fines with no detrimental effects on weight gains or carcass traits.

"Steer rations containing over 40 per cent fines appear to be useful for growing rather than for finishing rations," Lemieux pointed out.

Fines are low in crude protein, 1.2 per cent on a dry matter basis, and are low in minerals with the exception of sulfur and sodium. Rations containing fines usually require additional

Wood stove seminar set

NEWARK, Del. — Because more people in Delaware are using wood as fuel, a wood stove safety seminar is scheduled for Wednesday, December 6, at 7 p.m. in the Christiana Fire Hall, located at the intersection of routes 7 and 273 in Christiana, Del.

The seminar is designed for interested consumers as well as dealers, building

protein in the form of either true protein or non-protein nitrogen. Macrominerals—calcium, phosphorus, potassium, and magnesium—and several trace minerals may need to be supplemented with feeding fines. Where green forage is not fed, vitamins A and D may also need to be added.

Details of the various feeding trails are found in the "Science in Agriculture" article. Copies of the Fall energy issue are available from the Mailing Room, 112 Agricultural Administration Building, University Park, Pa. 16802.

inspectors, salespeople, contractors, safety specialists, and insurance company representatives. There will be exhibits and educational materials available.

The program will cover different types of wood stoves and their uses, along with installation, operation, maintenance, and chimney construction. The economics of heating with wood will also be discussed.

The event is sponsored by the Delaware Cooperative Extension Service. There is no admission charge, but those planning to attend should pre-register by calling (302) 738-2468.

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Are we approaching a traffic jam in outer space? According to a report in the December Reader's Digest there are approximately 4500 pieces of human engineering sailing around up there - 900 of them satellites, the rest spatial debris.

December tax management

(Continued from Page 136)

combine) before the end of the estimated useful life he used in computing the credit, he must recompute the credit, using its actual useful life. He must then increase the tax liability for the disposition year by the difference between the credit taken in all affected years, and the recomputed credit.

Used property may also

qualify for investment credit under certain conditions, says the specialist. For details on how to calculate this, one can consult the "Farmer's Tax Guide - 1979 Edition." Copies of this are available at county extension offices in Newark, Dover or Georgetown, or by writing: Mailroom, Agricultural Hall, University of Delaware, Newark, DE 19711.

PUBLIC SALE

34 ACRE FARM,
FARM EQUIPMENT, ETC.
SATURDAY, DECEMBER 16

10:30 A.M.

On the premises in Little Kutztown, Jackson Township (near Fire House), Lebanon County, Route 645, North of Myerstown.

Frame house has modern kitchen, dining area has brick walls, 2 other rooms and out kitchen on first floor. 2 bedrooms with closets and bath room on second floor. All rooms but one have wall to wall carpet. Oil fired baseboard heat (2 years old). Water is supplied by a never failing spring which also feeds a nice pond on premises.

Bank barn appr. 36x54, 2 chicken houses, milk house, spring house, etc. Roofs are in good condition.

Open House - Saturdays, December 2 and 9,
from 12 to 4 P.M.

Oliver #4 crawler loader, Hupmobile running gear with motor, tar buggy, Oliver 77 row crop with hydraulic system, loader, plow, 2 row corn planter, semi mounted rake, 7 foot mower, John Deere L.A. cultivator and plow, steel wheeled garden tractor, New Holland baler, Smoker elevator, cultipacker, 2 rubber tired wagons, Brady chopper, cylinder corn sheller, 2-1 hole shellers, Hahn Eclipse L.T.D. 500 riding mower, large rototiller, potato plows, 1 horse cultivator, wheelbarrow, railroad jack, 225 amp Lincoln welder, Agway rocket fence controller, pneumatic glass lined water tank (new), coke soda cabinet, old heatrola, Duotherm oil heater, porch rockers, double door utility cabinet, base cabinet, assorted electric motors, belt sander, 7 inch Craftsman saw, electric drill, asst. tires and rims, used brick and block, etc.

SALE TIME — 10:30. REAL ESTATE — 2 P.M.

Conditions by:

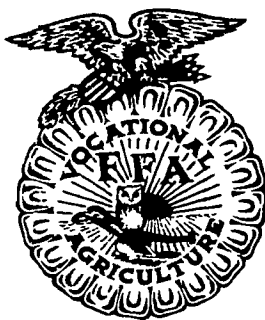
MARY JANE GETTLE
MELVIN GETTLE, SR.

Attorney -
Brightbill of Siegrist, Koller & Brightbill
Auct. - G. Harvey Weik
Clerks - Hoover & Ogurcak

— LUNCH AVAILABLE —



MILLER'S SECOND ANNUAL



CLUB CALF SALE



MONDAY, DECEMBER 11, 1978

At 7:30 P.M.

All Calves Will Be Preconditioned
And Many Are Halterbroken

FITE'S SALES BARN

Directions - 1/4 mile West of Quarryville on Oak Bottom Road, off of Rt. 372 at Shady Lane Dairy Sales. All calves will be on display at barn starting Saturday, December 9, 1978.