

Grazing livestock on high energy turnips

ROCK SPRINGS — Farmers once complained when cattle got into their turnip patches. Now some farmers are grazing livestock on turnips and related crops, many of which will be displayed during Ag Progress Days next week at Penn State.

Such crops are known as brassica and are 85 to 95 percent digestible, according to Gerald A. Jung of the USDA Pasture Research

Laboratory at Penn State. The brassicas include turnips, rape, kale, and swedes.

"It's possible that forage turnips and other brassicas can improve weight gains of grazing animals more than the grasses commonly grown today," Jung commented.

During Ag Progress Days he and his associates will exhibit several hundred plots of brassica crops from Sweden, Germany, New

Zealand, and Canada. Varieties will be identified for farmer inspection.

Ag Progress Days will be held Tuesday through Thursday at the Agricultural Research Center of Penn State, 9 miles west of the campus on Route 45.

Jung noted that the feeding value of the brassicas stays high from late July into December, weather permitting. Most standard forage crops, in

contrast, are at their best for one or two weeks and then lose their nutrient quality and become less palatable and less digestible.

Using brassica crops as forage is not a new practice, Jung said. Such crops are grazed commonly by livestock in Old World countries and New Zealand. Farmers in the east and midwest fed brassicas to cattle about 50 years ago. Jung believes the practice of hand-harvesting may have limited their early use. One study showed that three times as much labor was needed as for making corn silage.

Farmers who grow brassica crops often use them in pastures right along with the standard grasses. Visitors to Ag Progress Days will see that such crops can be established readily in permanent sods, Jung pointed out.

In 1977 experimental plots, orchardgrass pasture seeded to turnips and rape averaged about 80 per cent

more forage than adjacent bluegrass-clover pasture, it was pointed out. Moreover, the number of grazing days per acre of orchardgrass planted to brassica crops was about four times that of the bluegrass pasture.

The Penn Staters are also studying insect damage, often a problem with brassica crops during warm weather. Insecticide trials suggest that flea beetle control is more important when planting after conventional tillage than after planting in pasture sod. Dry matter yield for kale, for example, was 136 per cent higher for insecticide-treated plots than for untreated plots with conventional tillage. In contrast, yields were only 34 per cent higher for treated than untreated plots with minimum tillage in sod.

"While palatability is high, we can not give an unqualified green light to the brassicas without further research," Jung observed. "We are uncertain about the

levels of substances which could interfere with thyroid function. We must also determine the nitrate levels in brassicas. Both can adversely affect animal growth and condition."

Brassica crops have another advantage over grasses — they're higher in nutrients such as magnesium, sodium, iron, manganese, and zinc. Jung said this is an added value in improving the mineral balance of pastures.

"Turnips and rape are consumed readily by cattle and were preferred over orchardgrass second growth, until rape stubble has been grazed down to 3 to 6 inches," he stated.

Using 14 head of cattle per acre, a relatively high stocking rate, Jung and associates observed what they termed "remarkably good harvesting of the crops with almost no waste." Only two roots in a one-third acre area were left uneaten because of manure droppings.

Safe tractor driving at Ag Progress

ROCK SPRINGS — "One of the best ways to teach youth about safety is to use friendly competition so kids learn while they have fun," says James W. Garthe, Extension agricultural engineer at Penn State.

Mr. Garthe will be heading a team of 4-H and FFA volunteers who will conduct a safe tractor driving contest on Wednesday at Ag Progress Days.

The contest will have both 4-H and FFA youth demonstrating the safe operation of agricultural equipment, while also competing for the winning position. The course layout includes a pre-start safety check of equipment, backing a two-wheel wagon into a narrow alley, and maneuvering the two-wheel wagon through an obstacle course. The competition also includes moving a four-wheel wagon from one position to another with accuracy and with the least amount of handling.

The top six winners in both 4-H and FFA competition at Ag Progress Days are later invited to compete again at the Farm Show in Harrisburg in January.

The safe tractor driving contest is open for all youths who are members of a 4-H Club or FFA chapter. To be eligible to drive at Ag Progress Days, a person must be a safe tractor driving winner in his or her county. If under 16 years of age, a participant is required to possess a Certificate of Training card.

Mr. Garthe adds that further information may be

obtained from any county agent or vo-ag teacher in your county.

Ag Progress Days will be held Tuesday through Thursday at the Rock Springs Agricultural Research Center 9 miles west of State College on Route 45. The three-day event has been designated an official part of the 125th anniversary celebration at Penn State.

Plays to be presented

ROCK SPRINGS — A theatre production by the Pro Art Players of the Cresson Lake Playhouse will highlight first day activities at Penn State's Ag Progress Days. On Tuesday, the Players will present "The Key", a children's participatory drama written by Brian Way.

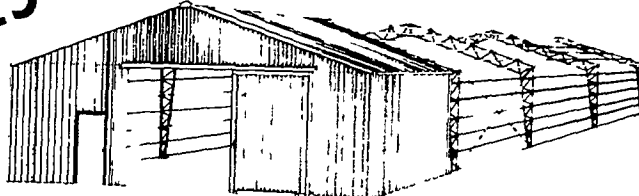
At 11 a.m. inside the Ag Progress Days Theatre, company members will set the stage as a family of settlers about to embark on a journey westward. Children at the event will be invited to join the family and become a

community of settlers who brave the dangers of searching for a better land.

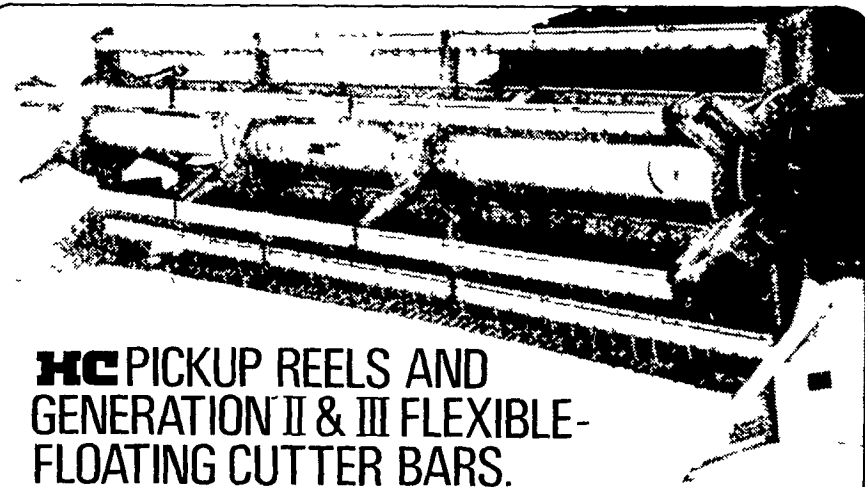
"The Key" is one of several dramas performed by the Pro Art Players in which children and families get involved in learning and fun through creative dramatics.

Artists from the Cresson Lake Playhouse will also perform on Wednesday. Throughout that day outside the Family Living Tent, puppeteers will present "African Trio", a magical story written for the young and the young at heart.

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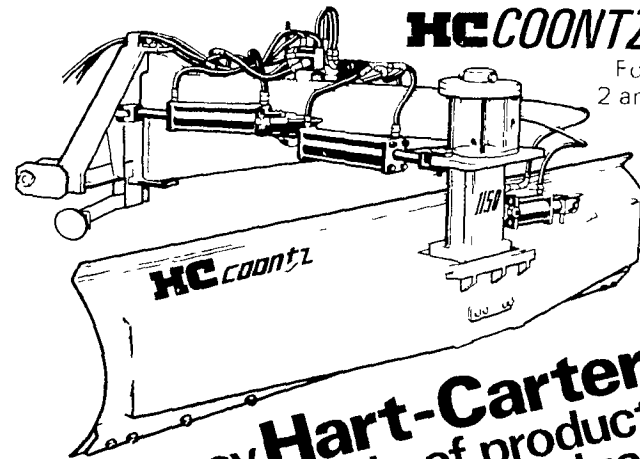


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