## Beef Farmers Can Reduce Feed Costs

UNIVERSITY PARK (Centre Co.) - Beef cattlo farmers can reduce their herd's winter feed costs by using stockpiled tall fescue regrowth and corn stalks to graze catule, according to a recent

## Contest

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Gold Emblem Teams

1.     - California, Cadee Ohancsian, from Clovis, Seth Nitschke, from Clovis, Lino Mendes, from

Penn State study.
Dairy and Animal Science faculty who used three feeding systems last winter found that fescue and corn stalks were between $\$ 57$ and $\$ 68$ per acre

## Winners

Hanford; 2. - Texas, Jason Behrends, Todd Bierschwale and Lydell Meier, all of Fredericksburg; 3. - Kansas, Jered Shipman, Ben Simon and Kari Brown. all of Girard.

|  | Nursery <br> Top Tandscape |  |
| :--- | :--- | :--- |
| Top Individuals | Town | State |
| 1. Eugene Kidd | Bear Creek | North Carolina |
| 2. Cris Webster | Bear Creek | North Carolina |
| 3. Scott Barronton | Fayetteville | Georgia |
| 4. Mark Estridge | Bear Creek | North Carolina |
| 5. Josh Munsey | Flint | Michigan |
| 6. Wade McCollum | Lineville | Alabama |
| 7. John Neipert | Troy | Missouri |
| 8. Jennifer Hargis | Buckner | Kentucky |
| 9. Adelee Gade | Lakefield | Minnesota |
| 10. Donna Martin | Martinsville | Virginia |

Gold Emblem Teams

1.     - North Carolina, Eugene Kidd, Mark Estridge and Chris Webster, all of Bear Creek; 2. Georgia, Joshua Westerman,
compared to the cost of feeding cows round-baled hay in drylot. The trial starled on November 18, 1992, approximately two weeks after calves were weaned, and continued for 63 days. Each of the three systems tested used 12 cows.
In System 1, cows were confined to drylot and fed free-choice round-baled hay that had been stored without cover. The round bales were fed in a round bale feeder. The hay was relatively high quality, containing 15.6 percent total protein. The roundbaled hay was valued at $\$ 60 /$ hon. There was an allowance of 1.28 tons, including wasted hay, per cow for the 63 -day trial.
System 2 used stockpiled tall fescue that was last grazed 90 days before the test began. Fifty pounds of nitrogen per acre had been applied in August at a cost of $\mathbf{\$ 2 1}$ per acre. This treatment allowed 0.88 acres per cow. Cattle were moved weekly, grazing about 1.2 acres of fescue each time. Protein content of the standing grass ranged from 8 percent in November to 5.7 percent in January. The approximate dry matter yield of the stockpiled tall fescue was 1.5 tons per acre.
System 3 consisted of grazing corn stalk residue for the first 29 days of the trial and then stockpiled tall fescue for an additional 35 days. The com field yielded approximately 110 bushels of shelled com per acre and was a grain-producing variety. There was an allowance of 0.6 acres of corn stalks and 0.4 acres of stockpiled tall fescue per cow. Paddock size, grazed for a seven-day period, was 1.8 acres of com stalks.
The per-acre value of the com stalks for the first 29 days was calculated to be $\$ 57$ per acre or about $\$ 35$ per cow, based on the average daily per head round bale cost of $\$ 1.20$ for the cows confined to drylot. This assumes that snow cover would not have prevented
sufficient cornstalk grazing. There was an 18 -day -period during the trial when cows in Systems 2 and 3 were each fed 18 pounds of rectangular-baled hay per head daily after a 17 -inch snowfall.
According to Lowell L . Wilson professor of animal science, "even subtracting out the rectangularbaled hay that was fed when grazing was not possible because of snow accumulation, the average value of the com stalks and the stockpiled grass was $\$ 58 /$ acre The rectangular-baled hay was valued at $\$ 100$ ton and was fed on the snow."
According to Beef and Forage Herd Manager Peter J. LeVan, "One of the reasons that the com stalks and stockpiled tall fescue gave a rather large saving was due to controlled grazing. The cows were provided a seven-day quantity of either com stalks or grass at one time. This made more efficient use of the available forage. To divide the weekly grazing paddocks, we used a single electrically-charged wire which was quite effective in restraining the cows to paddock areas to be grazed."

Cows gained 0.50, 0.03, and -. 16 pounds per day, respectively, during the 63 -day trial from November 18 to January 19. These weight changes were acceptable levels of performance during this phase of production particularly since cows in all three systems were gaining weight by the end of the trial. Changes in cow weight were not a factor in comparing the treatments since the cows were not sold
Spring-calving beef cows in the
first and recond trimesters of pre gnancy require a lower plane of nutrition during late fall and carly winter compared to calving, lactation and breeding requirements. It can therefore be economical to match lower-quality feeds that may be available - such as corn crop residues and stockpiled grass - to this period of lower nutritional requirements.
The average calving date of the cows in the spring of 1993 was April 10. There were no differences between cow groups for calf birthweight, calf vigor score, calving ease score, or calving percent. There also were no differences in any health or maternal characteristics, such as retained placentas or calf acceptance by the cow. According to Erskine H. Cash, professor of animal science, "I must be emphasized that after the cows came off this trial on January 19, they were fed round-baled hay in drylot according to or exceeding requirements recommended by the National Research Council Continuation of weight loss on cornstalk grazing later than accomplished in this trial may have caused a depression of some of the cow or calf characteristics during the following calving and breeding seasons unless supplemental protein and energy were provided to meet the requirements of pregnant cows in the last trimester of pregnancy."
Crystal L. Egan, project assistant, and Richard F. Todd, former departmental research aide, also helped with this project, which was conducted at the Haller Farm near the University Park Campus of The Pennsylvania State University.

## Schulers Is Forage Superbowl Finalist

MADISON, Wis. - DJSP Schuler Farm, Fleetwood, Pa., has placed in the top 20 of the World's

Forage Analysis Superbowl.
The farm earned recognition as a finalist in the dairy haylage division using DeKalb Plant Genetics DK 125.
"This disease-resistant variety is known for excellent yield potential, winterhardiness, and fast recovery after cutting," said DeKalb Regional Agronomis Clay Clement. Samples submitted in the dairy haylage division are judged on forage analysis, visual factors, herd production, and milk produced per ton.
The World's Forage Analysis Superbowl was started in 1984 to encourage and promote quality forage production. Samples from around the country are judged on forage analysis, visual factors, herd production, and milk produced per ton. Results are announced annually at the World Dairy Expo in Madison, Wis.



