

Lancaster Farm Bureau Board To Meet

The Lancaster County Farm Bureau meeting of the board of directors will be held Tuesday, September 1, starting at 7:30 p.m. at the Farm and Home Center conference room. Any farmer or member is welcome to attend and bring up any policy idea or concern that they would like to board to consider for presentation at the county annual meeting in October.

For more information contact President Jane Balmer. Phone: (717) 653-5916.

Ag Progress Holds Hay Show

ROCKSPRING (Centre Co.) — The results of the hay show held last week at Penn State University College of Agricultural Science's Ag Progress Days were released recently.

The show is designed to have three divisions, or sections, according to the way the hay was cured and preserved.

Each division consists of 10 classes of hay, according to species and mix.

For example, class 1, 11, and 21, each consist of first cutting alfalfa with more than 10 percent grasses.

All three who were named grand champion exhibitors won with entries in the second class of each division (Class 2, 12, and 22), which consists of later-cutting alfalfa with not more than 10 percent grasses.

In the Section I division, Robert Oswald of Nazareth, Northampton County, had the grand champion entry.

In the Section I division, the hay must be field cured or is can be partially field cured and mow finished; no heat or preservatives can be used.

Robert Bieber, also of Nazareth, a several-times repeat winner in the show, was named grand champion of the Section II division, which allows partial field curing with some heat drying, but no preservatives.

In Section III, Don Myers of Spring Mills, in Centre County had the grand champion entry. In the Section III competition, the hay is partially field cured and has preservative added.

The show attempts to maintain recognition of the different skill achievements needed to create top quality hay when using the different curing and storing techniques.

This year, the results were reported differently. The results of entries by all 33 exhibitors were reported by name of exhibitor, instead of by show division and class.

Ayrshire Breeders Enjoy Picnic

BELLVILLE (Juniata Co.) — The Pennsylvania Ayrshire Breeders Association recently announced that its annual picnic held July 25 at the Rushing Springs Farm in Bedford was a strong success.

Rushing Springs Farm is owned by Curt and Thelma Sweinhart and family.

The day was filled with food, games, activities, a state association meeting, tours of the newly refurbished farm as well as nearby Historic Bedford, and fellowship.

According to Ben Hillyard, association president, "The Swienhart herd and farm looked tremendous and the Swienhart family was a true delight of the day." Larry Morris, assistant profes-

Of special note, while none of his entries were selected as a grand champion, Nevin Rice of Blain, in Perry County, won four first places — every entry won its class.

RM Klein Hay & Straw Farms of Northampton took three first places and two second places with its five entries.

Of those exhibitors who won sectional grand championships, with three entries Bieber had two first places and one third; Don Myers had three entries also with two finishing in fourth place in their class, and his one first place; and Robert Oswald had one entry that, of course, also was a first place in its class.

However, to make the results understandable for comparison, the rest of the classes must be defined.

Classes 3, 13, and 23 entries had to be of a first cutting alfalfa/grass mix with more than 10 percent, but less than 50 percent grasses.

Classes 4, 14, and 24 entries had to be later cuttings of that alfalfa/grass mix.

Classes 5, 15, and 25 entries had to be clover hay with not more than 20 percent grasses.

Classes 6, 16, and 26 entries had to be clover hay with more than 20 percent, but less than 50 percent, grasses.

Classes 7, 17, and 27 entries had to be of first cutting grass hay with not more than 10 percent legumes.

Classes 8, 18, and 28 entries had to be later cutting grasses of that Class 7 mix.

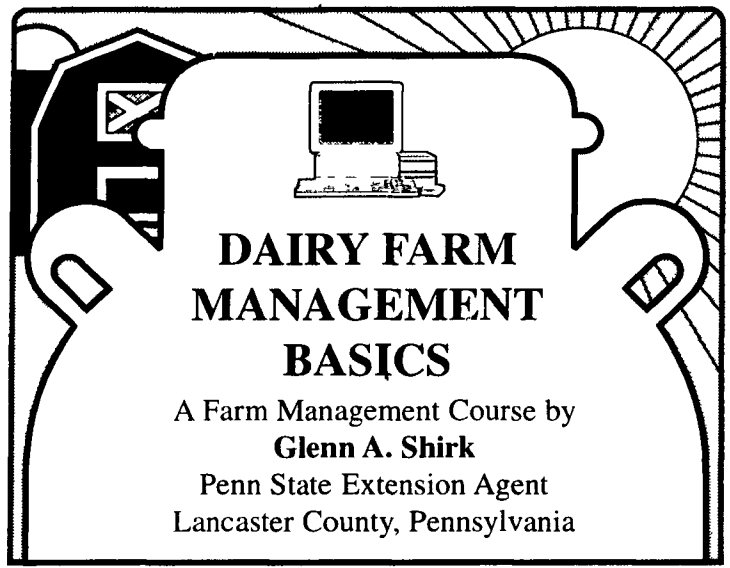
Classes 9, 19, and 29 had to be mixed hay with more than 50 percent legumes and any mix other than grasses.

Classes 10, 20 and 30 were to be any mixture not classified in any other class that contains 50 percent of more grass mixed with alfalfa, clover or birdsfoot trefoil.

All entries submitted to the Ag Progress Hay Show are automatically entered in the state hay show during the state Farm Show.

sor of dairy science at Delaware Valley College talked about the college and changes taking place there. He said that 70 out of 84 students are now taking dairy science studies at Delaware Valley College. He said he was looking for support from the Ayrshire Association in helping to find some good quality animals for the college.

John Rogers, of Belleville, a national delegate, updated the group on the National Ayrshire Association and plans to promote the Ayrshire. He also talked about the upcoming "Raise to Graze Sale," set to be held at his Plum Bottom Farm on Sept. 19. There are to be 50 to 60 head of bred heifers and some first lactation cows offered for sale.



DAIRY FARM MANAGEMENT BASICS

A Farm Management Course by
Glenn A. Shirk
Penn State Extension Agent
Lancaster County, Pennsylvania

Meet the Nutrient Needs of All Cattle Article 13

Goal Meet the nutrient needs of all cattle, including lactating cows, dry cows, bred heifers and youngstock
Prepare dry cows and heifers for their next lactation
Prevent problems associated with calving time and with early lactation
Prevent appetite problems and metabolic problems

Needs of cattle vary with age, stage of lactation and stage of pregnancy, as shown in the table. Thus, it is important to develop rations for all groups of cattle, not just the lactating group. For specific feeding advice, consult your nutritionist.

Feeding the Pre-Calving Group

The excuse "I don't have facilities to handle and feed my dry cow separately" does not hold water! If you are really serious about wanting the milking herd to perform well and profitably, you need to invest in heifer and dry cow facilities that will enable you to handle and feed them properly, or find someone else who can do the job properly.

Remember

- Dry cows and late-bred heifers are next months' milkers
- Calves and heifers are your future milkers
- Their milk of tomorrow depends on their care today
- Short change heifers and dry cows, and they will short change you!

A cow's lactation starts months ahead of the day she calves. The pre-calving care of heifers and dry cows has a major affect on lactation performance, mastitis, reproduction, metabolic problems and longevity! A lot needs to be accomplished in this pre-calving period!

- 1 Heifers need to be well grown out before they calve. Holstein heifers should weigh about 1200 lb after calving. Larger heifers generally experience fewer calving problems. Undersized, high producing heifers have a difficult time meeting all their nutrient needs for production, for flesh maintenance and for growth. They'll be thinner and have more breeding difficulties and may not be in good enough flesh to turn dry and begin their next lactation. Thus, it is nice if heifers can have a lot of their growth done before calving.
- 2 Get heifers and dry cows in proper flesh, about a body score of 3.5, and don't let them lose any flesh, even if they have gotten too fat. The last thing you want to do is have them draw down their body reserves just before calving, that is when their need for body reserves is greatest.
- 3 Develop gut capacity before calving so it's there to serve them well after calving, when they really need it. Stuff them with a bulky ration and restrict the energy density to control their flesh.
- 4 Foster good rumen function by feeding lots of forages.
- 5 Start encouraging the development of the right kind of rumen microbes by gradually increasing the grain intake, starting about 3 weeks before calving, and peaking at about 0.5 to 0.7% of body weight within a few days of calving. At this same time start introducing them to small quantities of the same feeds they will be getting after calving.
- 6 Stimulate the development of rumen papillae. These are the finger-like projections that grow out from the rumen wall and greatly increase the absorption of nutrients from the rumen into the blood stream where the nutrients can be utilized by the cow. It takes about 3 weeks for papillae to develop, and their development is stimulated by the grain feeding, as discussed earlier. It is important for these papillae to be in place ready to work at calving time. The cow can't wait 3 weeks after calving for this to be done. If the papillae are not functioning well after calving, and grain feeding increases, the fatty acids that are produced as a result of digestion can not be absorbed as effectively. Thus they accumulate in the rumen, triggering acidosis, off feed problems, ketosis, DA's, laminitis, etc.
- 7 Acclimate heifers to their new herd mates, their new surroundings, new workers, new noises and new routines. This reduces the social stress at this very critical time in their life.
- 8 Maximize DMI, and do everything possible to keep cows from going off feed at calving time. DMI generally drops at this time, and in some cases, it may be beneficial to feed cows a special ration or a "stress packet". Discuss these concerns with your nutritionist.
- 9 Prevent infections that stress the animal's immune system or throw her off feed. Provide a clean, dry maternity area, and be sure the ration is properly fortified with selenium and vitamin E.

Guide to the Composition of Dairy Rations

Description	Heifers			Dry Cows				Lactating Cows		
	0-6 Mo	7-12 Mo	12-24 Mo	Early Dry	Close Up	Early Lact	Mid Lact	Late Lact		
DMI (as % of body weight)	2.6	2.4	2.2	1.9	1.8	4.0 +	3.5 +	3.0 +		
% of DMI from concentrates	60-65	30-35	15-20	12-15	22-25	55-60	45-50	35-40		
% of DMI from forages	35-40	65-70	80-85	85-88	75-78	40-45	50-55	60-65		
Total NDF minimum (% DM)	25	30	35	36	36	28-32	33-35	36-38		
Forage NDF minimum (% DM)				27	27	21-24	25-26	27-28		
NSC minimum (% DM)				26	26	32-38	32-38	32-38		
Fat maximum (% DM)						5-7	4-6	4-5		
NEL (Mcal / lb DM)				0.60	0.64	0.62	0.66	0.76		
NEM (Mcal / lb DM)	0.77	0.72	0.65			0.76	0.80	0.72		
NEG (Mcal / lb DM)	0.49	0.44	0.38			0.72	0.76	0.68		
Crude protein (% DM)	16	13	12	12-13	13-14	17-18	16-17	15-16		
Soluble protein (% CP)	25-30	30-35	30-38	30-38	30-38	30-34	32-36	32-38		
Degradable protein (% CP)	45-55	63-67	66-72			62-66	62-66	62-66		
Undegradable protein (% CP)	45-55	33-37	25-30			34-38	34-38	34-38		
Calcium (% DM)	0.60	0.48	0.45	0.45	0.55	0.81	0.91	0.77		
Phosphorus (% DM)	0.40	0.32	0.30	0.30	0.35	0.46	0.52	0.44		
Magnesium (% DM)	0.22	0.22	0.22	0.20	0.22	0.28	0.34	0.25		
Potassium (% DM)	0.80	0.80	0.80	0.80	1.00	1.00	1.50	1.00		
Sulfur (% DM)	0.21	0.17	0.16	0.16	0.17	0.23	0.24	0.21		
Salt (% DM) or Sodium (% DM)	0.25-0.30	0.25-0.30	0.25-0.30	0.25-0.30	0.25-0.30	0.40-0.50	0.40-0.50	0.40-0.50		
Chlorine (% DM)	0.10-0.12	0.10-0.12	0.10-0.12	0.10-0.12	0.10-0.12	0.20-0.25	0.20-0.25	0.20-0.25		
	0.20-0.24	0.20-0.24	0.20-0.24	0.20-0.24	0.20-0.24	0.25-0.30	0.25-0.30	0.25-0.30		
Manganese (ppm)	44	44	44	44	44	44	44	44		
Copper (ppm)	11-25	11-25	11-25	11-25	11-25	11-25	11-25	11-25		
Zinc (ppm)	70-80	70-80	70-80	70-80	70-80	70-80	70-80	70-80		
Iron (ppm)	100	100	100	100	100	100	100	100		
Added selenium (ppm)	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30		
Added cobalt (ppm)	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20		
Added iodine (ppm)	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50		
Total Vit A (IU / lb DM)	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500		
Added Vit D (IU / lb DM) min	750	750	750	750	750	750	750	750		
max	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100		
Total Vit E (IU / lb DM)	20	20	20	35	35	20	20	20		

Source: Data extracted from Penn State Dairy Reference Manual 3rd edition

In other business, Hillyard presented awards to representatives of the top five Ayrshire herds in the Pennsylvania Ayrshire Breeders Association — in order, Don Gable of Conebella Farm in Chester County, Jim Finley, Dale and Patty Maulfair of Lebanon County, Doug Stewart, and Warren Schmuck.

Also announced was the top herd for New Jersey, the Alvin

String herd of String-Along Farm; as well as the top West Virginia Ayrshire herd, that owned by the West Virginia University Dairy Department.

"Congratulations go out to all of the top herds on a job well done," Hillyard said.

He also reminded youth of a Sept. 21 meeting in Room E of the state Farm Show Complex in Harrisburg. The meeting is being held

in conjunction with the Pennsylvania All-American Dairy Show held during the week at the Farm Show Complex.

In other news, Milt Brubaker of Lancaster won the sire judging contest held during the picnic. Don Gable was first in a calf-judging contest.

For more information call Hillyard at (717) 569-4371.