

MAKING FORAGES WORK DOWN ON THE FARM

Jason Sandefur
Manager
Berle Clay Farm
Paris, Kentucky

Jason manages the Berle Clay Farm in Paris, Kentucky. The farm has been in the Clay family since the 1770's. The Homestead was built in 1778.

The farming operation consist of approximately 680 acres of orchardgrass-clover, 300 acres of orchardgrass-alfalfa, 210 acres of tall fescue-clover, 100 acres of crops, 13 acres of tobacco and 70 acres in roads, buildings, etc.

The cattle operation consist of approximately 225 cow-calf pairs, 275 developing heifers, 175 feeder heifers, 700 stockers, and 210 calves to preconditioning.

In addition to using alfalfa for hay and haylage, Jason uses alfalfa as a summer grazing crop. He typically grazes from early June through mid-September (approximately 100 days). His stocking rate will average approximately 1.8 hd/ac with a stocking density of 10-25 hd/ac. He rotates every 2-5 days. Although there are year to year variations, he usually averages approximately 2.25 pounds per day gain, and usually exceeds 400 pounds per acre at a cost of approximately 0.26 cents per pound of gain.

In addition to all of Jason's activities as Manager of Berle Clay Farm, he is also active in KCA and other state and local projects and activities.

In 2001, Jason became the American Forage and Grassland Council's National Forage Spokesman. He earned this high distinction by competing with other forage producers from throughout the USA and Canada. We are very proud of Jason, his program and the recognition he has brought to Kentucky Forages.

Garry D. Lacefield
Extension Forage Specialist
University of Kentucky



How We Make Forages Work For Us

Berle Clay Farm - Paris, Kentucky
Jason Sandefur, Manager



Farm History

- Purchased in 1782
- Homestead built in 1837
- Forages always been the main enterprise



2007 Inventories

Spring Calving Cows - 220

Fall Calving Cows - 80

Precondition all Calves for CPH

Elite Bred Heifers - 180

Stocker Cattle -250

Alf./Orch. Grass Hay-15,500 Bales



Farm Breakdown - 1248 Acres

Maury Silt Loam Soil Types

- 50%-Orch. Grass/Clover - 680 acres**
- 25%-Orch. Grass/Alfalfa - 225 acres**
- 25%-Tall Fescue/Clover - 210 acres**
- Other - 70 acres**
 - (CRP, roads, woods, & barn lots)**



Berle Clay Farm Forage System

- Maximize grazing season
 - Start early with small grain
 - Graze Alfalfa during Summer
 - Graze Late on Stockpiled Fescue
- Round bale silage for winter feed
- Square Bales give added Flexibility for Diversification



Phasing Out Grain & Tobacco Enterprises

- 1997 - 300+ acres corn
 - Silage and Grain
- 2001 & 2002 - No corn acres
 - Cheaper to buy energy sources
 - Land more suited for raising forages than grain crops
- Transferred 300 corn acres to alfalfa acres
 - 75 acres/year over 4 year period

Why we chose Alfalfa to replace Grain & Tobacco Revenue



- Alfalfa allows us to increase our cattle carrying capacity
 - High quality winter feed
 - Summer grazing
 - Stockpiling of fescue
 - Square Bale Flexibility

Round Bale Silage

- 1999 - Purchase Wrapper with Phase II money
- 1st cutting Alfalfa, Small Grains, Sudex, & Soybeans
- Replace corn silage with higher protein feed source



How We Make Bale Silage Work

- Wrap 100 bales a day
 - 1 Man loading in Field
 - 1 Man unloading at Wrapper
 - 2 Men rotate hauling on 3 double wagons
 - Hire 1 custom baler



Haylage Production

First Cutting	4.5 Rolls/Acre	1.8 Tons DM
Mow/Rake	\$22/Acre	\$4.88/Roll
Baling	\$8/Roll	\$8
Wrapping	\$5/Roll	\$5
Plastic	\$2.68/Roll	\$2.68
	Cost Per Roll	\$20.56
Net Profit	\$25 - \$20.56 =	\$4.44 x 4.5 =
		\$19.98/Acre



Winter Bale Silage Ration Cost of Gain – Developing Heifers

Feedstuff	Consumption	Cost per Day
Alfalfa Silage	38 lbs.	\$.59
Soy Hulls	6 lbs.	\$0.37
Mineral	.25 lbs.	\$.06
Totals	3.2% of BW	\$1.02
ADG 2.0 lbs.	COG	\$.51 per lb.



Grazing Alfalfa

- High quality & high yielding forage for summer grazing
- Able to increase carrying capacity by 25% & maintain cattle inventories longer
- Allows us to stockpile fescue for winter

A photograph showing several cows gathered around a large concrete water tank in a dirt paddock. The scene is outdoors with trees in the background.

Distributed Water System Makes it Possible

2 wells tied together with
30,000+ feet of 2 inch line

Supply 24 concrete tanks

8 hydrants for portable tanks

A photograph of a dirt paddock with several large metal water tanks. In the background, there is a green field with a fence line.

Bloat Prevention

- **1620 g/ton Rumensin Mineral**
- **50/50 Orch. Grass & Alfalfa**
- **Graze Alfalfa at 75% bud**
- **Avoid grazing clean first year stands**
- **Avoid new paddocks when wet**
- **Rotate Cattle after Lunch**

Rotationally Graze To Maximize Utilization



Stocking Rates on Alfalfa

- 4 - 5 groups of 150 to 200 head
- 1.3 cow - calf pairs/acre
- 1.8 head stockers/acre (700-850 LB.)
- Stocking density of 10 to 25 hd/acre
- Rotate cattle every 2 to 5 days

Grazing Alfalfa - Gain per Acre

Grazing 6/10 to 9/20	100 Days
Stocking Rate/Acre	1.8 head
ADG per Head	2.25 pounds
Gain per Acre	405 pounds



How We Make Square Bales Work

- Bale 1000 bales a day
 - Hoelscher Bale Accumulator
 - 1 Man Baling
 - 1 Man loading
 - 1 Man securing loads and hauling to barns
 - Market most all hay within 5 miles of Farm





Production Cost

Stand Establishment Costs

Seed	\$68
Fall Tillage	\$15
No Till Seeding	\$15
Lime @ 2 Tons	\$30
Total	\$128



Production Cost

Fertilize and Stand

Annual Cost per Acre

Grazing vs. Square Baling

Inputs	Grazing	Hay Prod.
Stand Cost-6years	\$21.33	\$21.33
Potash	\$33.75	\$101.25
Cash Rent	\$50.00	\$50.00
Total Cost/Acre	\$105.08	\$172.58

Square Bale Production

3 Cuttings	120 Bales/Acre	2.8 tons DM
Mow/Ted/Rake	\$30/Acre	\$90
Baling/Loading	\$1.50/Bale	\$180
Storage/Delivery	\$.30/Bale	\$36
Baling Cost	Per Acre	\$306
Production Cost	Per Acre	\$172
Net Profit	\$5.50 x 120 =	\$660-\$478=
	\$660	\$182 / Acre

Grazing Alfalfa - Cost of Gain

Alfalfa Cost per Acre	\$105.08
Mineral (1620 Rumensin)	\$4.70
Vet Cost	\$3.50
Interest @ 9.5%	\$13.00
Total Cost/Acre	\$113.28
Gain/Acre	405
Cost of Gain	\$.28



Grazing Alfalfa – Profit/Acre

Value of Gain	\$1.00
Cost of Gain	\$.28
Gain Per Acre	405
Profit per Acre Grazed	\$291
Profit per Acre Baled	\$182
Difference	\$109



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