

Winter Grazing Options for Florida

R.L. Stanley, Jr.

Research/Extension Forage Specialist
 North Florida Research and Education Center
 Quincy, Florida

Most livestock enterprises in Florida are built around perennial grass pastures, mostly bahiagrasses and bermudagrasses. With a reasonable degree of management, these grasses can adequately support mature brood cows for a large portion of the year—from six months to as much as nine months from grazing alone. Approximately two-thirds of the total forage produced during the growing season is often produced during the months of June, July, and August. It is during this period that surplus forage is harvested for hay. Depending on animal requirements, this hay may then be used to support the cattle when perennial grasses are dormant. Some form of supplementation may be needed for the desired performance by different classes of a cattle.

Feed (all forms, combined) makes up the largest cost in cattle operations and has a great

impact on both reproductive performance (% calf crop) and weaning weight. The winter feeding period in Florida may be as long as 120 to 140 days and may account for more of the actual feed costs than grazing for the remainder of the year.

Many cattlemen prefer to have grazing available during the winter months when the perennial grasses are not producing. For some classes of cattle (mainly young cattle) this may be a time when high quality feed is necessary. Even with older cows, high quality forage during this time is often necessary to ensure that the cow rebreeds, conceives, and calves for the desired schedule. This usually brings us to the consideration of winter forage corps available and how to use them most effectively. Winter annual forage crops are expensive to produce, so we must manage carefully to get the most benefit from them. Table 1 summarizes cost estimates for

Crop	Total Cost (\$/A)
Rye	102
Ryegrass	96
Rye–Ryegrass	108
Crimson clover	82
Arrowleaf Clover	65
Crimson–Arrowleaf	81
White Clover	70
Rye–Crimson	110
Ryegrass–Crimson	94
Rye–Ryegrass–Clover	120

producing some of the winter annual forage crops.

Tables 2 through 10 show typical costs for producing several winter forage crops. In studying the factors used in determining these costs,

individual items may vary from one operation to another. Realizing that the cost of producing these crops is high, let's consider some management practices to most efficiently utilize these crops.

Considerations for Maximum Use of Winter Grazing Crops

1. Planting and Fertilization

A. Use extension service recommendations for variety selection.

B. Use soil test results to guide fertilization practices.

This could save money by detecting that some nutrients may not need to be applied and by determining the proper amount of the other nutrients to apply.

C. Use seeding method best for existing conditions. Some seed needs to be covered deeper than others (e.g., rye vs. clover). The small seeded legumes need at least good seed-soil contact, but not covered over ½ inch deep.

D. Try to plant when soil moisture is adequate for rapid germination and establishment.

E. Be sure to inoculate legumes properly.

2. Match the cattle to the forage.

It may be cheaper to use hay with proper supplementation for older cows, while weaned calves and growing heifers might use the high quality grazing most efficiently.

3. Practice rotational grazing if possible.

Most forage plants respond best in regrowth potential to a relatively short grazing period followed by a longer rest or regrowth period. Grazing periods of 1 day to 1 week, followed by a rest period of 3–4 weeks work well for many species. Other benefits of rotational and/or short duration grazing include more uniform grazing, better utilization of available forage, less overall trampling, and more uniform distribution of animal waste. If some form of rotational grazing cannot be practiced, grazing management and pasture condition should be closely monitored to prevent over grazing, and thus less regrowth for additional grazing.

4. May use as a supplement in a "limited grazing" system.

Different classes of cattle may be grazed for different time periods to meet nutritional requirements for the desired performance level. Use of a rotational, short-duration grazing scheme would be preferred with this limited grazing method of use.

5. Creep grazing of calves.

In some situations, calf performance may justify using high quality forage for creep grazing.

6. Management for reseeding.

Grazing management may need to be adjusted if clovers are being utilized, to allow seed to mature for a volunteer stand the following year. Even if seed production appears to be adequate, it's pretty cheap insurance to plant at about ¼ to ⅓ of the normal seeding rate to ensure adequate stands for maximum forage production.

Table 2. Growing Costs for One Acre of Rye on Bahia Sod, North Florida, 1994.

Item	Unit	Quantity	Price ----- dollars -----	Cost/A
I. CASH EXPENSES:				
Seed	bu.	2.0	12.00	24.00
Fertilizer:				
Nitrogen (N)	lb.	100.0	.28	28.00
Phosphate (P ₂ O ₅)	lb.	40.0	.25	10.00
Potash (K ₂ O)	lb.	60.0	.15	9.00
Fuel & machinery	acre	1.0	8.00	8.00
Labor	hr.	.75	5.50	4.13
Interest ¹	\$	83.13	.05	4.16
TOTAL CASH EXPENSES				87.29
II. FIXED COSTS:				
Machinery	acre	1.0	12.00	12.00
General overhead	\$	87.29	.03	2.62
TOTAL FIXED COSTS				14.62
III. TOTAL COSTS				101.91

¹10% for 6 months.

Prepared by: Timothy D. Hewitt, Extension Economist, University of Florida, Food and Resource Economics Department, NFREC, Marianna.

Table 3. Growing Costs for One Acre of Ryegrass on Bahia Sod, North Florida, 1994.

Item	Unit	Quantity	Price ----- dollars -----	Cost/A
I. CASH EXPENSES:				
Seed	lb.	18.0	.70	12.60
Fertilizer:				
Nitrogen (N)	lb.	120.0	.28	33.60
Phosphate (P ₂ O ₅)	lb.	40.0	.25	10.00
Potash (K ₂ O)	lb.	60.0	.15	9.00
Fuel & machinery	acre	1.0	8.00	8.00
Labor	hr.	.75	5.50	4.13
Interest ¹	\$	77.33	.05	3.87
TOTAL CASH EXPENSES				81.20
II. FIXED COSTS:				
Machinery	acre	1.0	12.00	12.00
General overhead	\$	81.20	.03	2.44
TOTAL FIXED COSTS				14.44
III. TOTAL COSTS				95.64

¹10% for 6 months.

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Table 4. Growing Costs for One Acre of Crimson Clover on Bahia Sod, North Florida, 1994.

Item	Unit	Quantity	Price ----- dollars -----	Cost/A
I. CASH EXPENSES:				
Seed	lb.	18.0	.80	14.40
Fertilizer:				
Nitrogen (N)	lb.	20.0	.28	5.60
Phosphate (P ₂ O ₅)	lb.	60.0	.25	15.00
Potash (K ₂ O)	lb.	90.0	.15	13.50
Fuel & machinery	acre	1.0	8.00	8.00
Labor	hr.	1.5	5.50	8.25
Interest ¹	\$	64.75	.05	3.24
TOTAL CASH EXPENSES				67.99
II. FIXED COSTS:				
Machinery	acre	1.0	12.00	12.00
General overhead	\$	67.99	.03	2.04
TOTAL FIXED COSTS				14.04
III. TOTAL COSTS				82.03

¹10% for 6 months.

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Table 5. Growing Costs for One Acre of Arrowleaf Clover on Bahia Sod, North Florida, 1994.

Item	Unit	Quantity	Price	Cost/A
			----- dollars -----	
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I. CASH EXPENSES:				
Seed	lb.	8.0	1.30	10.40
Fertilizer:				
Nitrogen (N)	lb.	20.0	.28	5.60
Phosphate (P ₂ O ₅)	lb.	40.0	.25	10.00
Potash (K ₂ O)	lb.	70.0	.15	10.50
Fuel & machinery	acre	1.0	8.00	8.00
Labor	hr.	.75	5.50	4.13
Interest ¹	\$	48.63	.05	2.43
TOTAL CASH EXPENSES				51.06
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II. FIXED COSTS:				
Machinery	acre	1.0	12.00	12.00
General overhead	\$	51.06	.03	1.53
TOTAL FIXED COSTS				13.53
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III. TOTAL COSTS				64.59
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¹10% for 6 months.

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Table 6. Growing Costs for One Acre of Crimson and Arrowleaf Clovers, North Florida, 1994.

Item	Unit	Quantity	Price ----- dollars -----	Cost/A
I. CASH EXPENSES:				
Crimson clover seed	lb.	10.0	1.10	11.00
Arrowleaf clover seed	lb.	4.0	1.25	5.00
Fertilizer:				
Nitrogen (N)	lb.	15.0	.28	4.20
Phosphate (P ₂ O ₅)	lb.	40.0	.25	10.00
Potash (K ₂ O)	lb.	60.0	.15	9.00
Lime	ton	1/3	24.00	8.00
Machinery	acre	1.0	8.00	8.00
Labor	hr.	1.5	5.50	8.25
Interest ¹	\$	63.45	.05	3.17
TOTAL CASH EXPENSES				66.62
II. FIXED COSTS:				
Machinery	acre	1.0	12.00	12.00
General overhead	\$	66.62	.03	2.00
TOTAL FIXED COSTS				14.00
III. TOTAL COSTS				80.62

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Table 7. Growing Costs for One Acre of White Clover, North Florida, 1994.

Item	Unit	Quantity	Price ----- dollars -----	Cost/A
I. CASH EXPENSES:				
White clover seed	lb.	3.0	2.00	6.00
Fertilizer:				
Nitrogen (N)	lb.	15.0	.28	4.20
Phosphate (P ₂ O ₅)	lb.	40.0	.25	10.00
Potash (K ₂ O)	lb.	60.0	.15	9.00
Lime	ton	1/3	24.00	8.00
Fuel & machinery	acre	1.0	8.00	8.00
Labor	hr.	1.5	5.50	8.25
Interest ¹	\$	53.45	.05	2.67
TOTAL CASH EXPENSES				56.12
II. FIXED COSTS:				
Machinery	acre	1.0	12.00	12.00
General overhead	\$	56.12	.03	1.68
TOTAL FIXED COSTS				13.68
III. TOTAL COSTS				69.80

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Table 8. Growing Costs for One Acre of Rye-Clover, North Florida, 1994.

Item	Unit	Quantity	Price ----- dollars -----	Cost/A
I. CASH EXPENSES:				
Rye seed	bu.	1.5	12.00	18.00
Crimson clover seed	lb.	10.0	1.10	11.00
Fertilizer:				
Nitrogen (N)	lb.	30.0	.28	8.40
Phosphate (P ₂ O ₅)	lb.	60.0	.25	15.00
Potash (K ₂ O)	lb.	90.0	.15	13.50
Lime	ton	1/3	24.00	8.00
Machinery	acre	1.0	8.00	8.00
Labor	hr.	1.5	5.50	8.25
Interest ¹	\$	90.15	.05	4.51
TOTAL CASH EXPENSES				94.66
II. FIXED COSTS:				
Machinery	acre	1.0	12.00	12.00
General overhead	\$	94.66	.03	2.84
TOTAL FIXED COSTS				14.84
III. TOTAL COSTS				109.50

¹10% for 6 months.

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Table 9. Growing Costs for One Acre of Ryegrass-Clover, North Florida, 1994.

Item	Unit	Quantity	Price ----- dollars -----	Cost/A
I. CASH EXPENSES:				
Ryegrass seed	lb.	20.0	.32	6.40
Crimson clover seed	lb.	10.0	.80	8.00
Fertilizer:				
Nitrogen (N)	lb.	30.0	.28	8.40
Phosphate (P ₂ O ₅)	lb.	60.0	.25	15.00
Potash (K ₂ O)	lb.	90.0	.15	13.50
Lime	ton	1/3	24.00	8.00
Fuel & machinery	acre	1.0	8.00	8.00
Labor	hr.	1.5	5.50	8.25
Interest ¹	\$	75.55	.05	3.78
TOTAL CASH EXPENSES				79.33
II. FIXED COSTS:				
Machinery	acre	1.0	12.00	12.00
General overhead	\$	79.33	.03	2.38
TOTAL FIXED COSTS				14.38
III. TOTAL COSTS				93.71

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Table 10. Growing Costs for One Acre of Rye-Ryegrass-Clover, North Florida, 1994.

Item	Unit	Quantity	Price ----- dollars -----	Cost/A
I. CASH EXPENSES:				
Rye seed	bu.	1.0	12.00	12.00
Ryegrass seed	lb.	15.0	.60	9.00
Arrowleaf clover seed	lb.	6.0	1.25	7.50
Fertilizer:				
Nitrogen (N)	lb.	60.0	.28	16.80
Phosphate (P ₂ O ₅)	lb.	60.0	.25	15.00
Potash (K ₂ O)	lb.	90.0	.15	13.50
Lime	ton	1/3	24.00	8.00
Fuel & machinery	acre	1.0	9.00	9.00
Labor	hr.	1.5	5.50	8.25
Interest ¹	\$	99.05	.05	4.95
TOTAL CASH EXPENSES				104.00
II. FIXED COSTS:				
Machinery	acre	1.0	12.00	12.00
General overhead	\$	104.00	.03	3.12
TOTAL FIXED COSTS				15.12
III. TOTAL COSTS				119.12

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