

PUBLICATIONS

1993

FIELD DAY REPORT - 1993

Texas A&M University Agricultural Research and Extension Center at Overton

**Texas Agricultural Experiment Station
Texas Agricultural Extension Service**

Overton, Texas

May 28, 1993

Research Center Technical Report 93-1

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SPRING RECOVERY OF COASTAL BERMUDAGRASS WHEN OVERSEEDED

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Background. Overseeding bermudagrass and bahiagrass pastures with clover and ryegrass is a common practice in East Texas. Benefits are (1) an extended grazing season which reduces the winter feeding period and the amount of hay needed; (2) the cool-season forages produce a higher quality forage which improves rebreeding, milk production, and animal gain; and (3) spring weed control. If a clover is used and managed properly, the nitrogen fertilizer needed for the winter pasture is also reduced. One disadvantage of overseeding is the potentially delayed spring recovery of the bermudagrass or bahiagrass.

An overseeding study on 'Coastal' bermudagrass was conducted at the Overton Center to obtain a better understanding of summer grass recovery. The Coastal bermudagrass sod was (1) top killed with Roundup, (2) disked lightly, or (3) not treated. Within each sod treatment the bermudagrass was mowed to a 1- or 4-in. height for a total of six sod treatments. Each set of treatments was overseeded with (1) 'Dixie' crimson clover, an early maturing clover, (2) 'Yuchi' arrowleaf clover, a late maturing clover, (3) 'TAM 90' ryegrass, or (4) not overseeded.

Research Findings. Harvesting of ryegrass plots began in February and clover plots in March. Only the late spring and early summer harvests containing Coastal bermudagrass are reported in Table 1. Coastal bermudagrass not overseeded had a large amount of weeds at the first harvest on 7 May regardless of sod treatment. Plots overseeded with ryegrass or clover had no weeds because the competition for light from the winter forages restricted weed germination and establishment.

Coastal bermudagrass yields by 18 June were higher on plots not overseeded than those overseeded with ryegrass or crimson clover and by 2 July on those overseeded with arrowleaf clover. Applying Roundup at 1 qt/ac in autumn damaged the bermudagrass and resulted in very little spring growth from any treatment. Coastal bermudagrass recovery was always lower in the lightly disked treatments than the control and where the sod was mowed to a 1-in. than a 4-in height regardless if it was overseeded or not.

Application. Overseeding Coastal bermudagrass with ryegrass or clover will slow bermudagrass recovery but it does provide spring weed control which saves the cost of a herbicide application or mowing. Lightly disking after mowing to a 1-in. Coastal bermudagrass sod in autumn results in about half the early Coastal production than if the sod was left at a 4-in. height

and not disked.

Table 1. Spring Coastal bermudagrass and weed production following no overseeding or overseeded with ryegrass, crimson clover, or arrowleaf clover.

	<u>Control</u>		<u>Light Disking</u>		<u>Roundup</u>	
	1 in.	4 in.	1 in.	4 in.	1 in.	4 in.
----- lb DM/ac -----						
Not overseeded						
7 May - weeds	1159	1131	965	949	883	1071
- Coastal	650	473	151	268	19	35
18 June	<u>1655</u>	<u>1662</u>	<u>1244</u>	<u>1278</u>	<u>109</u>	<u>98</u>
TOTAL	2128	2312	1395	1546	128	133
Ryegrass overseeded						
5 May	260	310	83	127	0	6
17 June	<u>1449</u>	<u>1637</u>	<u>990</u>	<u>1248</u>	<u>416</u>	<u>485</u>
TOTAL	1709	1947	1073	1375	416	491
Crimson overseeded						
18 June	788	1256	551	760	163	119
Arrowleaf overseeded						
24 April	61	94	51	46	39	19
3 June	400	636	222	425	69	60
2 July	<u>998</u>	<u>1159</u>	<u>572</u>	<u>787</u>	<u>187</u>	<u>165</u>
TOTAL	1459	1889	845	1258	295	244