

# Overseeding Tall Fescue With Winter Annuals

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The largest expense in cow-calf production is winter feed, and hay production is one of the most costly operations on most farms across the Southeast. Most producers realize the expense, and are attempting to reduce the feed cost.

One way to accomplish cost reduction is to decrease the amount of hay fed by lengthening the grazing season. One method used to lengthen the grazing season is stockpiling tall fescue. The forage produced by fescue during the fall is very

forage yield. Researchers drilled wheat and annual ryegrass into tall fescue on two dates. 'FFR 522' wheat and 'Ribeye' annual ryegrass were seeded either early (mid-September) or late (mid-October). Within each of these seeding treatments, plots were assigned to one of three fall nitrogen treatments (0, 60 or 90 lb. N/acre). All plots were fertilized with 80 lb. N per acre in spring, along with phosphate and potash.

Plots were harvested in the fall and twice in the spring. The first spring harvest was completed considerably earlier than normal hay harvest. This early harvest was done to evaluate the early spring growth of the treatments, which would indicate which were best for providing early season growth to decrease the late winter hay needs.

The design of the experiment allowed for the following comparisons: (1) effect of seeding date on forage yield, (2) effect of species seeded on forage yield, and (3) effect of fall nitrogen rate on forage yield.

## Results of the Study

To look at objective 1, all overseeding treatments were compared at the 60 lb. N per acre fertilization rate that was not overseeded.

The data in Table 1 indicates that only the information from the tall fescue without overseeding and the early seeding treatments should be considered for the rest of the discussion. With this in mind, Table 2 shows the effect of fall N rate on early winter forage yield. The data indicated that overseeding did not improve fall yield. Fall yield was influenced by N rate, not overseeding species. Yields were relatively low, but the highest yields were obtained with the higher N rates.

The fall N application influenced spring harvest, also (Table 3). The late March harvest indicates how early forage will be available for grazing in the spring. The data indicates that the overseeding did not improve yield, but the fall N rate did. Applying N in the fall allows tall fescue to produce more forage as well as store more carbohydrates in the roots and crown. This

extra carbohydrate storage provides more energy for the plant to begin to grow in spring.

## Conclusions

These results indicate that the best fall and early spring yield can be obtained through fall fertilization of tall fescue rather than seeding winter annuals into the tall fescue. If the stand of tall fescue is weak and does not have enough grass plants to provide adequate growth, then overseeding with wheat can bulk up the stand and provide more plants for growth. Overseeding is only a short-term fix, and eventually the stand of tall fescue will need to be reseeded to increase plant population.  $\Delta$

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**Table 1. Effect of overseeding tall fescue on fall and early spring yield.**

Overseeding Treatment	12/05/01	3/15/02
	----- lb. DM/acre-----	
None	1142	1445
Early Ryegrass	1013	102
Wheat	824	1010
Late Ryegrass	790	432
Wheat	724	434

All plots fertilized with 80 lb. N at planting and late February.

**Table 2. Effect of overseeding and fall N application on fall harvest of tall fescue (yield in lb. DM/acre).**

Overseeding Treatment	Fall N Application (lb. N/acre)		
	0	60	90
None	762	1142	1115
Ryegrass early	687	1013	1050
Wheat early	602	824	1010

Harvested 12/05/01.

**Table 3. Effect of overseeding and fall N application on early spring harvest of tall fescue (yield in lb. DM/acre).**

Overseeding Treatment	Fall N Application (lb. N/acre)		
	0	60	90
None	296	448	578
Ryegrass early	295	402	502
Wheat early	286	402	484

All plots fertilized with 80 lb. N in late February. Harvested 3/15/02.

high quality, and the nutrients are maintained in the forage for an extended period of time. Applying nitrogen in the early fall increases the yield, and provides forage that can be utilized during the late fall and winter to reduce the winter feed bill.

Producers sometimes use winter annuals to provide winter and spring grazing on cropland or on dormant bermudagrass pastures. Some producers seed these winter annuals into tall fescue pastures, thinking that the winter annual will provide more fall and winter grazing than will the tall fescue, which should result in a longer winter grazing season.

UT forage specialists have investigated the effect of drilling winter annuals into tall fescue on



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