

# **PUBLICATIONS**

## **1992**

# **FIELD DAY REPORT - 1992**

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

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

**Overton, Texas**

**April 30, 1992**

**Research Center Technical Report 92-1**

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## EVALUATION OF LATE-MATURING ROSE CLOVER SELECTIONS

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**Background.** Forage production potential of rose clover (*Trifolium hirtum* All.) in the southern United States is limited by the relative early maturity of available cultivars. This research was conducted to evaluate the forage production of three rose clover experimental lines that initiate flowering two to three weeks later than rose clover check varieties, 'Kondinin' and 'Hykon'.

**Research Findings.** The late experimentals and check varieties were grown in 1984, 1986, and 1987 at Overton, TX; in 1985 and 1986 at College Station, TX; in 1986 and 1987 at Beeville, TX; and in 1985, 1986, and 1987 at Brenham, TX and Yoakum, TX. At each location-year environment, the plots were harvested at least twice in each season. In ten of the thirteen location-year environments, the late-maturing experimental rose clover lines produced more total forage than either Kondinin or Hykon (Table 1). The multi-year average forage production of TX-H-18 rose clover was 178, 167, 202, 116, and 102 percent of Kondinin at Brenham, College Station, Overton, Yoakum, and Beeville, respectively. The experimental entries were not as productive in early season harvests as the check cultivars, but often produced twice as much dry forage as Kondinin and Hykon in the mid and late season harvests (Fig. 1). The experimental rose clover lines were lower or equal in forage production compared to the check varieties from late February to early March at Brenham and Yoakum. At all locations except Beeville, forage production of the experimentals was often double that of the check varieties from late March through mid May. The late-maturing experimental rose clover lines were capable of producing from 10 to 90% more total season dry forage than Kondinin or Hykon. At four of the five evaluation sites, the rose clover experimentals had a longer and later seasonal distribution of forage yield compared to the check varieties.

**Application.** The experimental rose clover line TX-H-18 was released in 1991 by the Texas Agricultural Experiment Station in cooperation with the Soil Conservation Service as 'Overton R18' rose clover. Foundation seed of this public cultivar were available from the Texas Foundation Seed Service for the first time in September 1991.

Table 1. Multi-year† mean forage production of rose clover at four Texas locations.

Entry	College Station				
	Brenham	Station	Overton	Yoakum	Beeville
	-----lbs DM/ac-----				
TX-D-3	5732 a‡	3727 a	3126 a	4550 a	4667 a
TX-F-20	5559 a	3382 a	3242 a	4069 ab	4431 a
TX-H-18	5406 a	3682 a	3261 a	4258 a	4933 a
Hykon	3189 b	2703 ab	1398 b	3341 c	4582 a
Kondinin	3028 b	2203 b	1614 b	3665 bc	3997 a

†Three years at Brenham, Overton, and Yoakum. Two years at College Station and Beeville.

‡Means within a column not followed by the same letter are significantly different according to the SNK multiple range test ( $P < 0.01$ ).

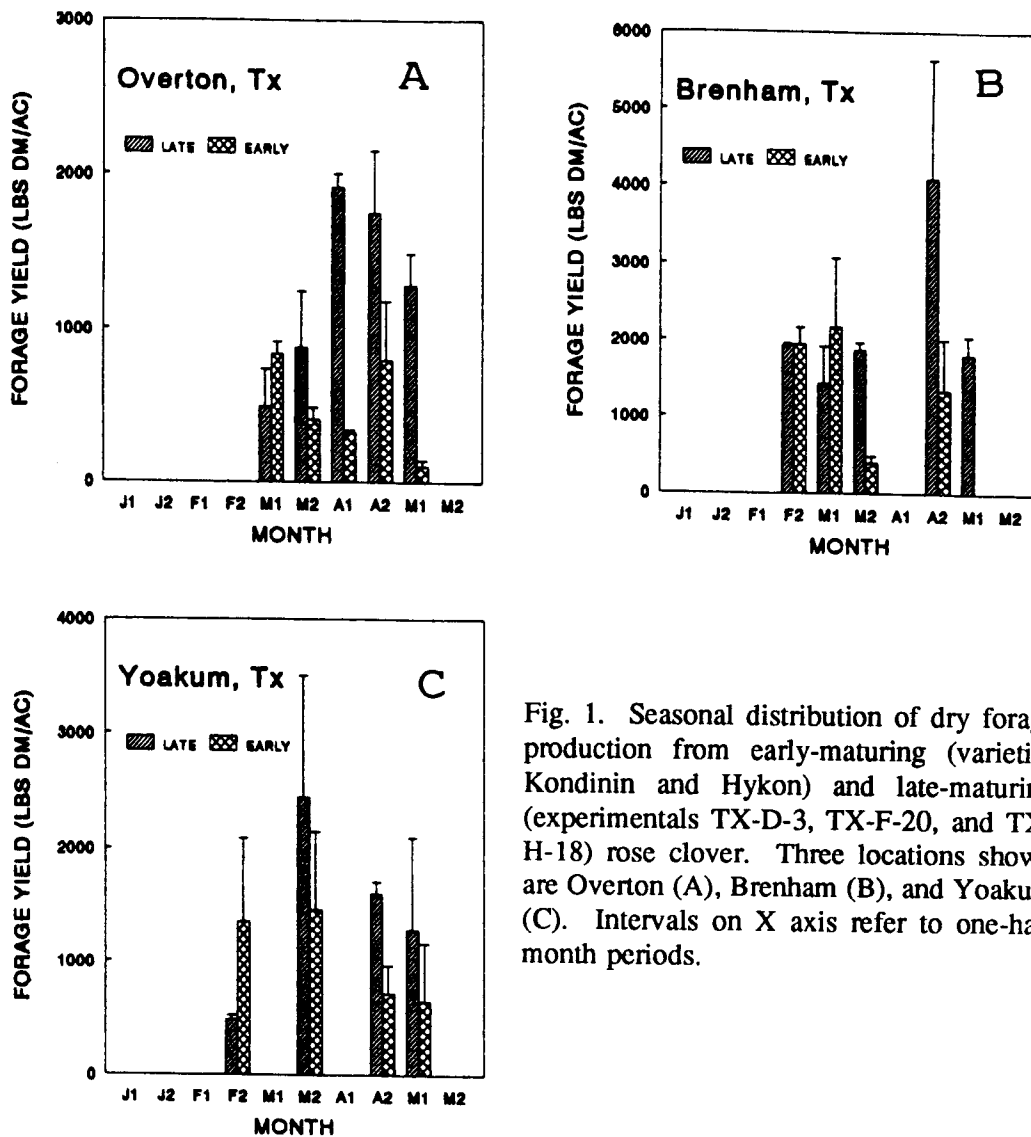


Fig. 1. Seasonal distribution of dry forage production from early-maturing (varieties Kondinin and Hykon) and late-maturing (experimentals TX-D-3, TX-F-20, and TX-H-18) rose clover. Three locations shown are Overton (A), Brenham (B), and Yoakum (C). Intervals on X axis refer to one-half month periods.