

Fall-planted Forage Mixtures for White-tailed Deer

Mixtures of Iron and Clay cowpeas, HeavyGrazer Oats and Apache arrowleaf clover were planted at Overton, TX on Aug. 27, 2003. Seeding rates are shown in Table 1. The seed bed was disked and seed were broadcast in 10x20 ft. plots with the six mixture treatments arranged in an RCB design with three replications. The plot area was rolled to lightly cover the seed and insure good soil contact. Forage yield estimates were made on each plot by hand harvesting a one square foot quadrant. Each forage sample was oven-dried for 72 hours and dry forage yield per acre was calculated. Seven harvests were taken beginning at 30 days post-planting and continuing until early June, 2004.

In the early fall harvests (9-29-03 and 10-28-03) the high cowpea planting rates produced more cowpea forage but restricted oat production, regardless of oat planting rate. The forage yield trends were similar at 90 days post-planting with the exception that the high oat planting rates (30 and 40 lbs/ac; Mix # 3 and 4) produced the highest oat yields. The cowpeas were killed by frost just prior to the 90 day post-planting harvest date.

In early Jan. (134 days post-planting) Apache arrowleaf forage yield was best at the low cowpea planting rates, reflecting the effect of previous competition from the thick stands of cowpea. Oat forage yield in this same harvest did not show the same response to cowpea planting rate. In January the higher oat seeding rates produced more forage even in the mixtures with high cowpea planting rates.

In March both the oats and arrowleaf clover produced the highest forage yield in the mixtures that included the low cowpea planting rates.

By April 21 the oats were in the soft dough stage and there were no differences in total forage yield or the oat component production for the six mixtures. The higher planting rates (Mix # 4, 5 and 6) of cowpea suppressed Apache forage production at this harvest date.

At the final harvest date (June 7, 2004) the Apache arrowleaf was in full bloom with some green seed set. Forage yields will be similar or greater than the late March harvest.

Based on 2003-2004 data, the Mix #4 (40 lbs/acre Iron and Clay + 40 lbs/ac Heavy Grazer oats + 10 lbs/ac Apache Arrowleaf) provides the best distribution of forage production from early fall to early summer (Figure 1).

Figure 1. Forage production of a mixture of Iron and Clay cowpeas, HeavyGrazer oats and Apache arrowleaf clover. Planting date was August 27, 2003.

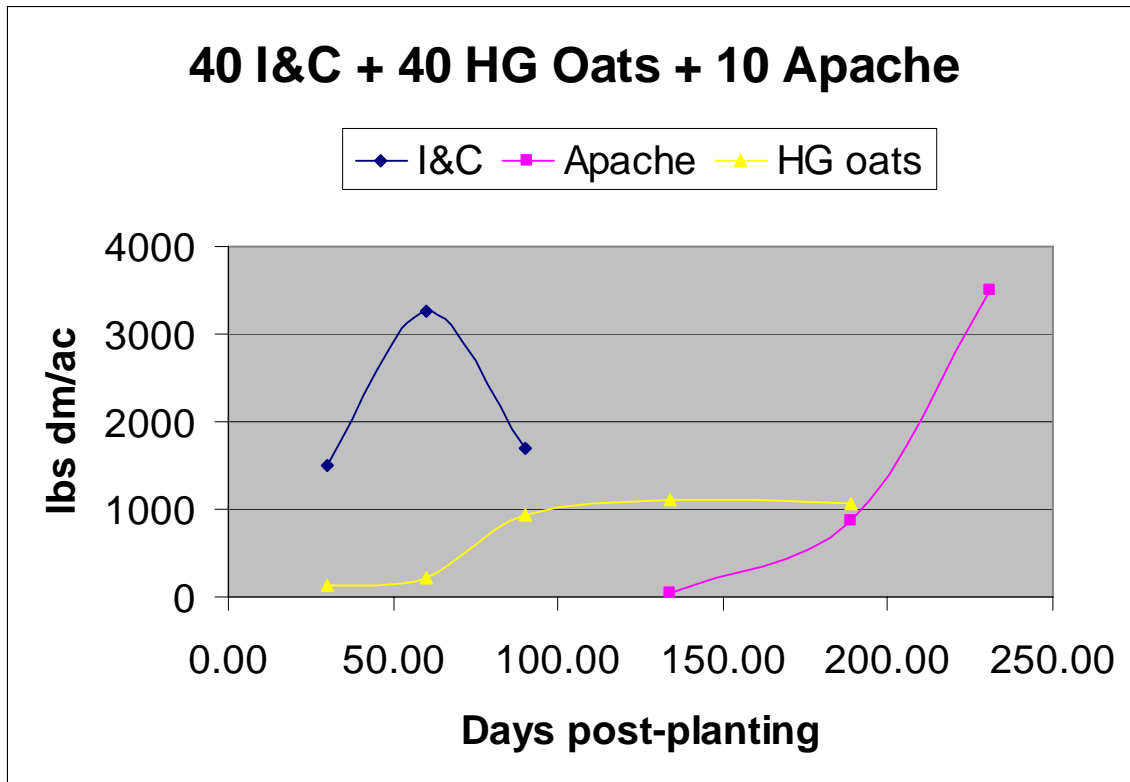


Table 1. Mixture planting rates.

Iron & Clay cowpea	HeavyGrazer oats	Apache arrowleaf
lb/ac	lb/ac	lb/ac
20	20	10
25	15	10
30	10	10
40	40	10
50	30	10
60	20	10