



## Suggestions for Small-Acreage Alfalfa Producers Texas High Plains August, 2005

Calvin Trostle, Extension Agronomy, Texas A&M—Lubbock, 806.746.6101, [c-trostle@tamu.edu](mailto:c-trostle@tamu.edu)

Producers with a few acres of alfalfa can reduce some of the concerns that might be faced by larger producers. You may not have the equipment, the time, the ability to monitor or manage your crop as closely. First, what are you going to use the alfalfa hay for? If you want highest quality alfalfa (cut near initial bloom), then you have to cut more often. You may not want to have to do that. On the other hand 'horse hay' is not as high quality, but still very good forage. You just don't have to cut as often.

Here are a few suggestions. We'll add more as we learn about the needs and concerns of those with a few acres of alfalfa.

### Land Preparation and Establishment

- **Fall seedings only**, even if someone else does it for you. Spring seedings are more subject to wind damage, insects, and weed problems—you can lose your plants. Getting started for hay production one year sooner is not worth the potential risk.
- Good stand establishment for alfalfa requires a firm seedbed. The rule of thumb suggests that as you would walk across the field before seeding that the heel of your shoe sink into the soil no more than 3/8". As long as weeds don't become a problem it is nice to have your seeding area well ahead of time to hopefully receive a packing rainfall.
- Get a soil test. Base any fertilizer you might apply on the recommendations of the soil test. Contact your County Extension office for assistance.
- Once you have your soil test, consider extra pre-plant phosphorous (P). If soil test is 'medium' still plan to add another ~50 lbs. P<sub>2</sub>O<sub>5</sub> per acre. If soil test is 'low' consider adding ~100 lbs. P<sub>2</sub>O<sub>5</sub> per acre. P is highly necessary for alfalfa forage production, but as fertilizer it is hard to get into the root zone unless you put it there before you seed the alfalfa crop.

### Initial Weed Control

- What weeds have you typically seen in this field in the past? Annuals? Grasses? Pesky perennials such as blueweed, whiteweed (silverleaf nightshade), and lakeweed (woolly leaf bursage)?
- Pre-plant weed control will be needed for alfalfa. Consult recent summaries for weed control in alfalfa from Texas or New Mexico at <http://lubbock.tamu.edu/othercrops> Your County Extension office can retrieve these documents for you if needed.

### Irrigation Capacity

- To reach top production alfalfa requires more inches of water per acre than any other crop grown in the Texas High Plains.
- Fit your acreage to at least 7 gallons per minute per acre for irrigation, more if you are using a side-roll. Many producers like having 10 gallons per minute per acre.

### Variety Selection and Seeding Rate

- Select a variety with across-the-board ‘High’ resistance to common alfalfa insect and disease pests. This reduces the likelihood that the crop will suffer reduced yields. You may not have time to observe insects regularly let alone spray a few acres. An automatic early-season spray program for insects, however, may not be a bad idea.
- For Lubbock and the southeastern Panhandle consider a Fall Dormancy (FD) rating no higher than 6 (the higher the number the more prone to winterkill and reduced stand longevity). Target FD 5 or 6 for Lubbock, FD 4 or 5 if northwest of Lubbock toward Clovis or near Amarillo. Err on the side of going with shorter rated Fall Dormancy. Slightly lower FD ratings may also last longer (less need to re-establish the stand).
- Don’t worry about seed costs that much, but do ensure that your seed is inoculated with *Rhizobium* inoculant so you will increase your potential for nitrogen fixation by the plants.
- Alfalfa seeding rates could be quite low, even less than 10 lbs./A, if conditions are good and soil is firm. But the last thing a producer with a few acres wants to worry about is getting a poor stand.
- Consider 20 lbs. of seed per acre (based on actual pure live seed) as a target knowing that your equipment might not be very accurate.
- If you are unsure how much seed you are getting attempt to calibrate your seeder, but err on putting out a few more pounds of seed if you have doubts.

### Cutting and Harvest

- Frequently cut alfalfa may not last as many years before the stand begins to thin.
- Let alfalfa go to as much as 25% bloom in the spring before first cutting.
- A happy medium for many producers between good quality alfalfa and good yields is cutting when 10% of the plants are in bloom.
- Small acreage producers to whom an extra alfalfa harvest might be a nuisance will probably find it more favorable to increase the time between cuttings to 30-35 days compared to a regular producer who often targets harvesting on a 28-day cycle for high quality forage.
- Let alfalfa have six weeks of growth in the Fall before last cutting (ideally near killing frost so the alfalfa doesn’t try to regrow much) to store more root energy reserves.