KEYS TO GETTING A GOOD STAND OF ALFALFA

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Profitable alfalfa production requires high yields of high quality forage, a long stand life and skillful marketing of the end product. This requires attention to details, timely action and advanced planning. There are four basic prerequisites for a successful alfalfa program: establishment, production, harvesting and marketing with a very specific goal within each component (Table 1).

Table 1. Successful Alfalfa Production: Practices and Goals

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The first and critically important step is establishment. High yield will not be possible unless there are enough healthy plants to produce. Advanced planning and attention to details are required for establishment than any other area of production. Many steps are involved and MOST are controllable. Our challenge is to control the controllable so we end with a desirable stand capable of yield-quality-persistence and ultimately PROFIT.

Establishment for STAND

1. **Site Selection:** Alfalfa requires a deep, well-drained soil for optimum production and stand life.

2. **Soil test and fertilize:** A soil test is the most economical investment in an alfalfa fertility program.

3. **Variety selection:** Variety selection can make the difference between profit and loss, between high yields and medium to low yields, between short stand life or longer stand life. At the University of Kentucky we test alfalfa varieties at different locations across Kentucky. See our website [http://www.uky.edu/Ag/Forage/ForageVarietyTrials](http://www.uky.edu/Ag/Forage/ForageVarietyTrials)
4. **Inoculation:** The majority of alfalfa seed sold is pre-inoculated. If raw seed is purchased, inoculate at the time of seeding with the proper strain of rhizobium.

5. **Weed control:** Use tillage or herbicides to begin with a clean weed-free seedbed. Weeds can dramatically reduce alfalfa stands, yields, forage quality and stand longevity.

6. **Seeding:** There are four major details that must be considered during the seeding process:

   A. Select a seeding method that will result in uniform distribution and good seed-to-soil contact. Many methods for prepared seedbeds and no-till can be successful if the above is obtained.

   B. Seeding dates are critical. Alfalfa can be seeded in late-winter, early spring or late-summer. Each has advantages and disadvantages and can vary drastically from year-to-year depending on the environment (remember last August-September with no water and very few acres were seed).

   C. Seeding depth. Alfalfa has small seeds (225,000/lb). As a result, it is very easy to get it too deep. Regardless of seeding method, the seed should not be planted deep. The ideal depth for our soils would be approximately ¼-½ inch with good seed/soil contact. Alfalfa seed must absorb 125% of its weight in water so good seed/soil contact is critical.

   D. Seeding rate. The normal seeding rate for alfalfa is 15-20 lbs/A.

The goal is to place viable seed of a good variety at the appropriate rate and date uniformly at the right depth and in good seed to soil contact. Accomplishing this will increase our chances of success.
During establishment, monitor new stands for signs of insects or weeds and control as required.

**Summary**

It is difficult to predict the probability of success in establishing alfalfa when so much depends on weather. The steps outlined above do not guarantee success, but if followed, they can increase the probability of obtaining thick, vigorous alfalfa stands. Once these stands are obtained, the alfalfa must be marketed directly or through livestock, and perennial plants must be managed to keep stands for several years to realize top profits. Such management can avoid or at least minimize the re-establishment costs that can occur if alfalfa is not properly managed.

More detailed information is available at the UK Forage Website:  
http://www.uky.edu/Ag/Forage/ForageVarietyTrials2.htm

**Selected References:**

