



## **Late-summer and Fall-planted Alfalfa Frequently Asked Questions**

*While the Southern Plains predominantly plants alfalfa in the “fall” because of climate and precipitation conditions, the rest of alfalfa country also has that option.*

By Dr. Don Miller

While alfalfa can be planted in the southern regions of the country when it’s technically autumn, for the purpose of this article, the planting times called late summer and fall are used interchangeably.

### **Q. Why should you consider a late-summer seeding of alfalfa?**

**A.** There are two common answers. First, if your spring planting of alfalfa failed, plant in late summer. Occasionally, due to various reasons, a new spring planting of alfalfa may fail. In this case, replanting in late summer may be the best option, especially if existing herbicide residues limit your crop choices. Normally, alfalfa is not followed with alfalfa due to the potential of autotoxicity problems in establishing the second alfalfa crop. However, in this case, autotoxicity is not a factor when the original field of alfalfa is less than one year old.

Second, a fall planting may also be an option the outgoing crop will be harvested early enough. This is often possible in rotations with early grain or vegetable crops.

**Q. What are the advantages of a late-summer alfalfa seeding?**

**A.** There are numerous advantages to late-summer seedings. Late-summer plantings are well established by the first production year. Therefore, yields are often closer to that of established alfalfa production fields than those of spring planted fields. Spring-seeded fields, of course, must go through the establishment phase and therefore are less productive the first year.

Planting delays and disease problems may be avoided with a fall planting. Fields are usually drier in late summer, making planting schedules easier to follow and decreasing disease pressure.

For regions that mostly grow spring-planted crops, moving a planting to the fall can reduce the spring workload.

With a few exceptions, the need for herbicides is reduced or eliminated with a late-summer planting since many of the annual broadleaf weeds will be killed by frost in the fall. Insect build-ups may also be reduced by the approaching cold weather.

**Q. What are the disadvantages or risk associated with late-summer plantings?**

**A.** Adequate moisture needed for germination can be less certain in late summer. This is the main factor that usually determines the success of a fall planting.

Early frosts may damage the stand before plants have time to fully establish. A minimum of six to eight weeks of growth is needed before a killing frost.

In some areas, sclerotinia root rot can be a problem if poor weather conditions slow or weaken plant growth during establishment.

**Q. What are the best tips for ensuring a fall-planted alfalfa fields is a success?**

**A.** Check previous crop herbicide residue for carry-over.

Fertilize are recommended by a soil test, and make sure the soil pH is above 6.2 at the time of planting.

Conserve soil moisture by firming the ground immediately after ground prep with a cultipacker or similar device. No-till planting is the best option to conserve soil moisture.

Don't plant too late.

**Q. When should alfalfa planted in the fall?**

**A.** Fall-planted alfalfa should have a minimum of six to eight weeks of growth prior to a killing freeze (4 hours below 26 degrees F).

*Recommended Planting Dates:*

July 21–Aug. 1: North Dakota, Northern Minnesota, Northern Wisconsin, Northern Michigan

Aug. 1-15: South Dakota, Southern Minnesota, Southern Michigan, New York, Northern Pennsylvania, Northwest Nebraska, Northeast Ohio

Aug. 15-25: Southeast Nebraska, Iowa, Northern Illinois, Northern Indiana, Southern Ohio

Sept. 1-10: Missouri, South Illinois, Southern Indiana

**Q. The Southern Plains and Southwest often fall plant alfalfa. Where else can it be done?**

**A.** Places like Kansas, Oklahoma and Texas usually fall plant alfalfa because soil moisture is more dependable in the fall during establishment, compared to a spring planting when an early summer drought can kill seedlings. Areas that usually receive 2 or more inches of rain per month during the establishment months (August, September, October), or fields with irrigation, are suitable for a late-summer planting.

**Q. What is best seeding rate and depth?**

**A.** The standard seeding rate for alfalfa is 15-20 lbs/acre. This rate may vary depending on local conditions. However, five to six weeks after planting, the end objective is to have 15-25 plants per square. Higher than normal planting rates may be required to obtain this initial plant density if soil conditions and/or method of seeding are less than optimal. Lower rates and planting densities may be advisable for dry land or arid climates. The recommended seeding depth for alfalfa is  $\frac{1}{4}$  -  $\frac{1}{2}$  inch, however this may vary depending on soil type and availability of soil moisture.

Adequate soil moisture to allow sufficient growth for establishment before a killing frost is critical for a late summer planting, if supplemental irrigation is not available.

The following chart lists common planting depth recommendations that take into account varying soil types and moisture levels.

Soil Type	Soil Moisture Content	
	Optimal	Marginal
Sandy (Lighter Soils)	½ inch	¾ - 1 inch
Silt Loam	¼ - ½ inch	½ - ¾ inch
Clay (Heavier Soils)	¼ inch	½ inch
NOTE: never plant alfalfa seed deeper than 1 inch.		

**Q. Are companion crops recommended?**

**A.** Planting a companion crop with a late summer alfalfa seeding is not generally recommended due to limited soil moisture. Available soil moisture is often limited in late summer plantings and competition with a companion crop may be detrimental to alfalfa stand establishment.

**Q. Will weed control be a challenge?**

**A.** Herbicide requirements for a late summer seeding may be minimal since annual weeds will be killed by frost. Perennial weeds should be controlled before planting when possible. Control of volunteer small grains may also be required.

No-till plantings may require herbicide applications to insure optimal alfalfa establishment.

**Q. Can fall-planted alfalfa be harvested in the fall?**

**A.** The fall growth of a late summer alfalfa seeding should not be harvested. Plants are small and subject to injury at this time. Harvesting the top-growth can be detrimental to winter survival. The first harvest should occur the following spring. Hay production this first year, should be similar to that of established alfalfa.