



ALBERT LEA SEED

800-352-5247 · www.alseed.com



Alfalfa (*Medicago sativa*)

Description

Alfalfa is a deep-rooted, long-lived perennial forage legume with wide adaptation. It is a broadleaf legume with many oval leaves growing the entire length of the plant. Alfalfa has the highest yield potential of the perennial forage crops. Yields in excess of 8 tons of dry matter and 4 tons of total digestible nutrients per acre have been obtained regularly. No other perennial crop is equal to alfalfa as forage for livestock, as a cash crop, and as an energy-efficient crop on steep slopes or unsuitable cropland.

Overview

- Uses:** Hay – Silage – Pasture – Cover Crop
- Strengths:** Superior yield and protein to other forage.
Good re-growth after cutting or grazing.
Breeding for improved winterhardiness, yield and disease resistance.
Well adapted to drought-prone soils
Excellent biomass accumulation & N fixation
- Weaknesses:** Potential to cause bloat when grazed.
Not well-suited to wet soils.

Plant Information

- Winterhardiness:** Good to excellent depending on variety and fertilization (Potash is essential for increasing winterhardiness and stand survival)
- Drought-Tolerance:** Excellent (for established stands)
- Wet soil tolerance:** Select varieties with Phytophthora & Aphanomyces resistance
- Average Nitrogen Fixation:** 100 – 150 lbs N /acre
- Forage Yield Range:** 3 – 8 DM ton / A (average 2- to 4-cut system)
- Relative Forage Quality:** 147 – 186 (index value)
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Seed and Seeding Info

Seeds per lb:	200,000 to 220,000
Seeding Rate Alone:	12 – 15 lbs /acre
Seeding Rate in Mixtures:	4 – 8 lbs /acre
Range of Seeding Dates:	Spring or late summer (April – Mid-May and Aug. 5 – 25 th in Southern MN)
Methods of seeding:	Broadcast and drag – Drill ; Rolling or cultipacking helps. Often seeded with a small grain cover crop when planted in the spring. Later summer seedings should be direct seeded to minimize competition.
Best seeding depth:	½ to ¾ Inch
Best Soil types:	Well-drained light soils (loam to sandy loam in texture)
pH tolerances:	6.5 to 7.0

Cultural and Harvest Information

As a grazing crop?

Alfalfa can be grazed alone or in a mixture but special attention must be given to minimize the potential of bloat. This risk can be minimized by seeding alfalfa with grasses. To prolong the longevity of the stand, it must be grazed evenly and stocked adequately. Interseeding grasses into thin patches can maintain the uniformity of the sod under heavy grazing pressure. Alfalfa seeded into an existing stand will often not establish due to autotoxicity of alfalfa plants.

As a haying crop?

Seeding Year - When alfalfa is spring seeded, the first cutting can be made 60 days after emergence if one cutting during the seeding year is allowed to reach early bloom before it is harvested. Normally up to two to three harvests may be made in the year of a spring seeding, depending on the length of the growing season, fertility of the soil and available moisture.

Established Stands - For high-quality alfalfa, make the first cutting at mid- to full bud stage. Cutting pre- or early bud alfalfa is not recommended because there is a higher risk reducing the stand. If an alfalfa stand has been weakened by winter stress, make the first cutting at the early- to midbloom stage. Summer cuttings are permitted at early bloom (approximately 35 days between cuttings). Avoid cutting alfalfa during the 6-week period prior to the average hard frost date (generally between early September and mid-October).

If harvests are delayed until mid-October, leave a 4- to 6-inch stubble to protect the crown and to catch snow for added insulation over winter.

Harvest schedules for alfalfa-grass mixtures should be based on the growth stage of the alfalfa as it relates to the species of grass used in the mix.

As a cover crop?

Alfalfa is an excellent plowdown crop for building productive, healthy soils on the farm. Alfalfa is fairly slow to establish but yields tremendous biomass and fixes large amounts of N at when mature. Alfalfa as a plowdown crop/cover crop can be fit into multiple rotations. Alfalfa is successfully sown with a nurse crop of spring small grains and can be tilled under in the fall of that same year. Established alfalfa can also be retained for pasture or forage and plowed under when the stand is weak or less productive. To maintain maximum cover crop & soil building potential, allow maximum growth on the alfalfa and refrain from harvesting. Improved, high fall dormancy varieties are ideal for use as a cover crop in the upper-Midwest; their low winterhardiness rating allows them to die off over the winter months. Inexpensive alfalfa blends may also be used if value is a consideration.

Websites & Resources

Seeding Alfalfa Fields Back Into Alfalfa: Problems With Autotoxicity

<http://www.uwex.edu/ces/crops/uwforage/AlfalfaTox-FOF.htm>

Managing Alfalfa Autotoxicity

<http://www.extension.purdue.edu/extmedia/AY/AY-324-W.pdf>

Hard Seed In Alfalfa

<http://www.uwex.edu/ces/forage/pubs/hardsd.htm>

Alfalfa Stand Establishment: Is This Stand Good Enough To Keep?

<http://learningstore.uwex.edu/pdf/A3620.pdf>

Midwest Forage Association

<http://www.midwestforage.org/index.php>

University of Minnesota Extension: Forages

<http://www.extension.umn.edu/forages/>

University of Wisconsin Forage Research & Extension

<http://www.uwex.edu/ces/forage/>

University of Wisconsin Extension: Forage Resources

<http://www.uwex.edu/ces/crops/uwforage/uwforage.htm>

University of Minnesota Variety Trials

<http://www.maes.umn.edu/index.htm>

University of Wisconsin Forage Testing Lab

<http://uwlab.soils.wisc.edu/>

Buying or Selling Hay

<http://www.uwex.edu/ces/ag/haybuying.html>

Late Summer Cutting & Management of Alfalfa

<http://ipcm.wisc.edu/blog/2012/09/late-summer-cutting-management-of-alfalfa/>

Alfalfa as a Cover Crop

http://www.omafra.gov.on.ca/english/crops/facts/cover_crops01/alfalfa.htm

Minnesota Department of Agriculture: Harvesting Hay & Silage

<http://www.mda.state.mn.us/protecting/conservation/croptions/harvesthay.aspx>

Albert Lea Seed House Product Information Guide

The information presented here is based on the best agronomic information we could cull from University Publications and other sources (usually identified). The cultural and agronomic information is relevant only to farming in the upper mid-west. This information is not infallible and is not a substitute for experience and/or education.

We **do not guarantee** farming results based on this information.