farm and home

FACT SHEET

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# Alfalfa, Queen of the Forages

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Minnesota farmers are being offered alfalfa seed in various forms, certified, brands (certified and uncertified), and blends. This sheet describes the various types and varieties of alfalfa.

## CERTIFIED SEED

The Minnesota Agricultural Experiment Station recommends that only certified seed of improved alfalfa varieties be used. Farmers who want to be sure of superior performance should buy certified seed of alfalfa varieties proved in the University's testing program.

Varieties recommended to Minnesota farmers by the Agricultural Experiment Station have been tested in trials for several years at six locations in the state. They are recommended because they have given the best performance of any varieties available to our farmers. Certification is the farmer's assurance of pedigree and of this same superior performance in the seed he sows on his farm.

## TRADE BRANDS

Much of the seed sold through commercial channels carries a trade brand of the company handling the seed. Brands are in a sense "trade marks" of the various companies and may be applied to certified seed, blends, or unmixed lots of ordinary (uncertified) seed. The farmer wanting to obtain certified seed must insist on seed that carries the certification tag, whether under a company trade brand or not. This certification tag assures the farmer that the seed he obtains is of the variety he selected.

## BLENDS

Blends are mechanical mixtures of seed of different origins or varieties. Hence the performance of a blend for any particular characteristic such as disease resistance is expected to be the average of the performance of the seed lots used in the blend. But when the components of the blend are changed, the performance may also be changed. Blending two or more lots of ordinary alfalfa will not give a product superior to certified seed of improved varieties.

There is little purpose in testing blends of alfalfa for comparison with improved varieties because the origin of the seed in the blends may vary from one lot to another and its performance will not be consistent.

This uncertified Northern alfalfa contained tall nonhardy Southern plants, as shown below. Althrough these tall plants looked healthy in October, they were dead in April.

## QUALITY

Mechanical purity and germination are important factors in good seed, but even more important are the yielding ability, winter hardiness, and disease resistance bred into the variety by the plant breeder. This can only be determined through the pedigree of the seed and known pedigree of alfalfa is possible only in certified seed.

## RECOMMENDED VARIETIES

Four varieties of alfalfa are recommended by the Minnesota Agricultural Experiment Station:

Ladak is a winter-hardy, wilt-resistant variety introduced from northern India. It has averaged slightly higher than Ranger in forage yield. It recovers slowly after cutting, but the yield of the second cutting of Ladak has been only slightly lower than that of the other varieties. It is recommended for seeding in short and long rotations.

Seed supply - Slightly over 1,000,000 pounds of certified seed are available for 1956.

Narragansett is a winter-hardy, high-yielding variety developed in Rhode Island. In Minnesota trials it has produced higher yields than Ranger and slightly higher yields than Ladak. Narragansett recovers rapidly after clipping and has good seedling vigor. This variety is susceptible to bacterial wilt and should be seeded only in short rotations (one or two years of hay production). It appears to be low in seed production and may never become a widely grown variety because of short seed supply.

Seed supply - There are about 1,500,000 pounds of certified seed of this variety available for 1956 seeding; however, because there is heavy demand for this seed in New England, the supply in Minnesota will be short.

Ranger is a winter-hardy, wilt-resistant variety developed by the U. S. Department of Agriculture and the Nebraska Experiment Station. Slightly superior to Ladak for wilt resistance, Ranger is recommended for seeding in both long and short rotations. This variety has been widely grown and has performed satisfactorily for many years.

Seed supply - About 53,000,000 pounds of certified Ranger seed are available for 1956.

Vernal is a winter-hardy, wilt-resistant, high-yielding variety released by the Wisconsin Experiment Station in 1953. Vernal is more wilt resistant than Ranger and recovers about the same as Ranger after clipping. This is the first year this variety has been recommended for Minnesota.

Seed supply - About 5,000,000 pounds of certified seed are available for 1956.

## OTHER ALFALFAS

These types of alfalfa are not recommended for Minnesota.

- Uncertified southwestern-grown seed should never be seeded for forage production, because plants grown from such seed lack winter hardiness. This is in contrast to certified seed of adapted varieties produced in the southwestern United States, which give satisfactory performance in Minnesota.

- Common alfalfas are named for the state or region in which they are grown. These are not varieties, and their performance is not consistent from one lot to another. Generally, the common alfalfas are susceptible to bacterial wilt and yield less than improved varieties.

These varieties are not recommended for Minnesota.

Atlantic is a synthetic variety developed in New Jersey. It yields about the same as Ranger, but it is susceptible to bacterial wilt and is not sufficiently winter hardy for Minnesota.

Buffalo is a wilt-resistant variety developed from Kansas Common, which it resembles in most other characteristics. It is not sufficiently winter hardy for use in Minnesota.

Du Puits is a variety introduced from France. It is very susceptible to bacterial wilt and may not be sufficiently winter hardy for Minnesota. This variety has given satisfactory forage yields in limited trials.

Grimm is a winter-hardy, wilt-susceptible variety developed in Carver County, Minnesota. It yields about the same as Ranger when wilt is not a factor.

Nomad was developed in Oregon from plants of an old stand that spread by underground stems. Under conditions where adapted, Nomad is a spreading or creeping variety. It does not creep and is low yielding in Minnesota.

Rhizoma was developed by the University of British Columbia. Under favorable conditions the plants spread by underground stems but the variety

Alfalfa varieties are continuously being tested by the University of Minnesota in plots as shown above. Each stake marks a corner of a 6 by 20 foot plot.

has not shown this characteristic in Minnesota. In trials in Minnesota, it has been about equal to Ranger in yield but is very susceptible to bacterial wilt.

Talent was selected from the French variety, Provence. Talent is susceptible to bacterial wilt and is not winter hardy.

Williamsburg was selected from Kansas Common for stem rot resistance. It, like Kansas Common, lacks winter hardiness.

## HINTS FOR BETTER ALFALFA PRODUCTION

1. Have soil tested and add lime or fertilizer whenever needed.
2. Buy high-quality certified seed of adapted varieties.
3. Inoculate before seeding.
4. Seed alfalfa with grass. Mixtures help prevent bloat, give better soil cover, and increase yields.
5. When you seed alfalfa with a companion crop, reduce the seeding rate of the grain.
6. Seed the alfalfa shallow (1/2 inch deep) in a firm seed bed.
7. Remove the companion crop as soon as possible. Harvesting the companion grain crop in late milk stage for hay or silage helps the legume get established.
8. Clipping and removing stubble following grain harvest favors alfalfa development.
9. Do not pasture or cut late in the fall. In this way you give plants in a new seeding an opportunity to store up root reserves before winter.
10. Let alfalfa plants reach early bloom stage at least once during the growing season each year.
11. Do not cut or graze four to five weeks before an alfalfa-killing frost. By giving plants in established stands an opportunity to build up good root reserves each fall, you get better winter survival and higher yields the following year.

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