Alfalfa Seed

Because of its importance among forage crops, alfalfa (Medicago sativa L.) is referred to as "Queen of Forages". Lucerne is another name sometimes used for this crop which evolved and was first used in Iran.

Yuma County is known for growing alfalfa with about 30,000 irrigated acres valued in 2005 at over $35 million.

It has been shown at numerous locations throughout North America that the highest seed yields are obtained from fields containing from 14,000 to 30,000 plants per acre. To achieve seed stands of these densities, growers have been sowing 0.5 to 1.0 lb/acre.

Alfalfa was first successfully grown in the United States during the mid 1850's began with the first settlers with many bringing a bag of seed from wherever they came.

Alfalfa seeds are so small (1-2 millimeters), slightly wider than the tip of a pencil lead, there are about 200,000 alfalfa seeds per pound.

Alfalfa is one of the most important forages for livestock. It is the most important "high quality" forage crop because of its high protein, vitamins, energy, and digestibility. Alfalfa can be used whenever herbivores need high quality diet for: growth, stamina, strength and, the production of meat, milk, wool, eggs or feathers.

Alfalfa is used as a high quality component of forage mixtures and allows use of lower quality forages in rations. It is also important for soil enrichment, soil water holding capacity improvement, mulch, and extraction of deep minerals and nitrogen. It is even used by humans for nutritional tablets and alfalfa sprouts!

High-yielding alfalfa requires deep soils to store an abundant water supply for season-long growth and requires large quantities of water (from rainfall, water table, or irrigation). Alfalfa requires approximately 6 inches of water in the root zone for each ton of hay produced per acre per year.

Recent USDA Market News data is still showing supreme and premium hay prices hovering in the $200 range in many markets. Fair quality alfalfa is averaging about $180 per ton, $50 per ton above last year’s price at the same time.

All soil textures (sands, loams, and clays) can be used for alfalfa; however, soils should be well drained to avoid root and crown diseases and allow oxygen to roots.

Alfalfa is the cornerstone of a growing dairy forage production acreage ranging from silage corn to green chopped wheat to crops like Sudan grass.

Alfalfa’s rise to great economic prominence is attracting new technology, specifically herbicide-resistant alfalfa. Many are optimistic that this technology will produce terrific yield and quality as there is no weed competition with the transgenic alfalfa some of the standard herbicides which can stunt the growth early of a new stand are not used.

In the US, there are 23.6 million acres of alfalfa cut for hay with an average yield of 3.3 tons per acre. The average yield in Yuma County is 3 times the national average with over 9.2 tons per acres. The record yield of one acre of irrigated alfalfa is 24 tons/acre.

The approximate yield of US alfalfa seed in 2005 was 135 million pounds, with average price of $190 per 100 pounds of seed, thus the estimated value of alfalfa seed is $218.5 million. A fringe benefit to the production of alfalfa seed is the production of honey from bees. In the
U.S., $147.7 million dollars worth of honey is produced each year.

Alfalfa is a widely adapted crop, energy-efficient and with the ability to gather available nitrogen from the air and utilize it for their growth. Grasses growing in association with alfalfa, or following in rotation, also benefit. On average, an acre of alfalfa will fix about 450 pounds of nitrogen per year, thus reducing the need to apply expensive nitrogen fertilizers.

One of the most important characteristics of alfalfa is its high nutritional quality as animal feed. Alfalfa contains between 15 to 22% protein as well as an excellent source of vitamins and minerals. Specifically, alfalfa contains vitamins A, D, E, K, U, C, B1, B2, B6, B12, Niacin, Panthenic acid, Biotin, and Folic acid.

Alfalfa is also directly consumed by humans in the form of alfalfa sprouts. According to the International Sprout Growers there are approximately $250 million dollars worth of sprouts sold in North America. Alfalfa juice is used in some health food products.

In addition to the traditional uses of alfalfa as an animal feed, alfalfa is beginning to be used as a bio-fuel for the production of electricity, bioremediation of soils with high levels of nitrogen, and as a factory for the production of industrial enzymes such as lignin peroxidase, alpha-amylase, cellulase, and phytase.

If you'd have to name the most significant forage for livestock then that would have to be Alfalfa. Considered as the oldest known plant for livestock feed, alfalfa is a leguminous plant grown for hay and forage. A nutritious fodder and honey crop, alfalfa sprouts is also mixed in salads, with leaves famous as a tasty vegetable.

Alfalfa is not considered important forage for nothing. It is considered high quality because of the presence of high protein, energy, and vitamins. Let alone digestible to herbivores that require stamina, growth and production of milk, meat, wool, etc, thus making it a primary use for the production of dairy followed by sheep, beef, horses and goats.

In various places, Alfalfa is also intended for human consumption, whose leaves are eaten as vegetable. And because it's very high in fiber, it is often formulated to work as dietary supplement in different forms such as tea and tablet.

When used as hay, Alfalfa is cut and baled. Not that it works better in this form but because bales are relatively easier to move around than loose haystacks.

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