

Irrigated Pasture for Horses

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How Much Water is Needed?

An acre of irrigated pasture will require the application of approximately 800,000 to one million gallons of water during the six months' irrigation season. The water source may be a dam, a stream, or a well.

How to Prepare a Seed Bed

A well-prepared seedbed is necessary. The soil should be plowed to be depth of six to eight inches. Disking in both directions with a harrow behind the disk should provide an ideal seed bed. Cross disking and harrowing may be necessary.

When to Plant

Irrigated pastures may be seeded either in the fall or early spring months. A fall seeding should be done between operated by hand. This type of seeder will normally broadcast seed over a 15- to 20-foot wide swath. Each swath should overlap so that distribution is uniform.

The broad casted seed should then be covered by a ¼ inch of soil. This may be accomplished by ring rolling, or by using a spike tooth harrow with the teeth sloped at a 45-degree

angle. A less desirable method would involve dragging the field with a 2" x 12" board about ten feet long.

DO NOT DISK the field to cover seed, as this will place seed too deep to emerge. It is advisable to use the no-till method of seeding, as opposed to disking and ripping the soil first. Disturbing the soil can bring up unwanted plant species.

What to Plant

Seeding rates per acre:

- 2 – 5 lbs. Birdsfoot Trefoil
- 5 – 8 lbs. Orchard Grass
- 8 – 12 lbs. Tetraploid Perennial Ryegrass

Approximately 16- 27 lbs. Total*

* Seeding rates will vary, depending on whether you are seeding a new pasture or improving an established pasture. Fewer pounds of seeds per acre are needed on an established pasture. Inoculation of sub clovers is crucial in establishing a good stand of clover. Only accept clovers that have been inoculated within the last two months. Inoculating the clovers yourself, assures higher counts of effective rhizobium, which means greater success.

Irrigation

Irrigation will be required between April and October, depending on the amount of rainfall. The peak water use will be in July and August. Plants used in irrigated pastures are rather shallow-rooted, so a 10 to 14 day schedule is recommended. Apply two inches of water each

time of irrigation during cool weather. An application of about three inches of water is recommended during hot weather.

Fertilization

Most of our soils are deficient in nitrogen and phosphorous. The use of 250 – 400 pounds per acre or 16-20-0 at time of planting will supply adequate nitrogen and phosphorous for establishment. A yearly application of eight to ten yards per acre of poultry manure, or 200 pounds of 16-20-0 per acre is recommended. Cow manure can also be used at 16 to 20 cubic yards per acre.

Grazing Management

Soil moisture and growth determines when grazing should start on a newly seeded pasture. Grasses should be at least four to six inches high and the top two to three inches of soil should be dry.

The irrigated pasture should be divided into a minimum of two fields by a fence. Grazing and irrigation should be rotated so that horses are not in the field being irrigated.

Adjust number of horses so that regrowth is three to four inches high before horses are moved into the next field to be grazed.

Carefully control grazing the first year of pasture establishment, especially when soil is wet. Light grazing is recommended three to four months after seeding whenever the soil is firm. It is important to remove the grasses during the winter, thus allowing the sun to penetrate to the clovers. If clovers are shaded by the grasses early in growth, they will not grow properly and could be lost. Yields from a newly seeded pasture will be approximately 60 percent of future yield. An important part of grazing management is implementing a controlled rotation grazing system that allows plants to rest and re-grow. Pastures should be managed to maintain animal health requirements while maintaining the needs of a new pasture. Horses should be kept in stall or

paddocks during the winter months to prevent damage to the pasture.

Food Value of Forage Produced

An irrigated pasture produces an excellent source of nutrients for horses. Alfalfa hay, oat hay, or other appropriate feed sources, fed during the spring flush of growth, will extend the utilization of the forage.

Acres Needed per Horse

An animal unit is a 1,000 pound animal and usually a horse is equivalent to 1.4 animal unit. An animal will consume approximately 2 – 3 % of its body weight per day, depending on its nutritional requirements. Therefore, on average, a horse will require 1,050 pounds of forage per month or six tons of hay or its forage equivalent on a yearly basis. Depending on the management of the pastures, an acre of irrigated pasture can produce enough forage to carry one horse for the entire year.

Use of Supplemental Feed on Pasture

Quality of Forage from Pasture

Acres needed per Animal Unit

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