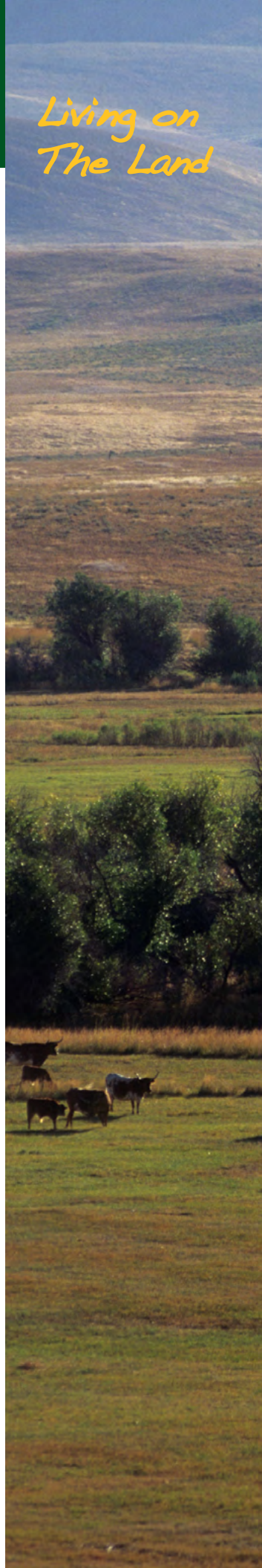
Pasture and Livestock Essentials



Pasture

Pasture is the key to healthy livestock. How you manage your pasture to prevent over- or undergrazing makes all the difference in forage quality and quantity and whether weeds are a problem.

Grazing

Know how much forage an animal needs to be healthy. That way, you can balance the number of animals on your pasture with the amount of forage available. You'll avoid overuse and cut down on supplemental feed requirements.

Table 1. Animal forage (dry matter in lb/month)

1 cow (1,000 lb)	800	1 llama	300
1 horse	1,000	1 goat	200
1 sheep	200	1 alpaca	100

These weights are for actual consumption; when feeding hay, include 10% more to account for waste.

Table 2. Number of adult animals/acre, April–October grazing season

Animal	Irrigated pasture*	Non-irrigated parcel (less than 50 acres)
Sheep	5	Use only as a part-time exercise area and not as a feed source.
Goats	5	
Alpacas	3	
Llamas	2	Monitor pasture use closely to avoid increased risk of weed infestation, overgrazing, and loss of healthy grass stands.
Horses	1	
Cattle	1	
Pigs	**	

*No supplemental feed supplied
**Not recommended

The basic guidelines for grazing are to "take half and leave half" and never to graze pastures below 3 inches high. "Take half" refers to 50% of the plant, not its height. Studies show that 50% of the root growth is stopped when over 50% of the aboveground portion of a grass plant is removed. Plant growth above ground mirrors what is occurring below ground. A small root system can only support a small amount of plant growth.

The key to successful pasture management is to give the most preferred forage species time to recover before grazing again. Pasture grasses should be at least 6 to 8 inches tall before they are grazed. Grasses regrow based on how much green leaf area is left, so the shorter the plant is grazed the longer it takes to recover. Growth rate depends on environmental conditions as well. Where plant growth is slow, recovery time is longer.

Rotational grazing is necessary to prevent both overgrazing and undergrazing. Subdivide your pasture into several smaller ones, then move your animals through the pastures when grass gets down to 3 or 4 inches high. You may need a **sacrifice area** (all-season pen) to hold animals and provide them hay when none of the pastures' grass is tall enough to restart grazing.

Pasture fertility

Most dryland pastures in eastern Oregon are a mix of annual and perennial grasses that, if the soil is healthy, generally only need applications of nitrogen in spring and fall. You can add other nutrients if needed. Irrigated pastures often have alfalfa or clovers in the mix and need applications of phosphorus, potassium, and sulfur also.

Because soils vary greatly in the region, it's important to know what kind you have and how many nutrients to apply. Test your soil every 2 to 3 years. Apply fertilizer based on the soil test results to ensure the health of the feed stand.

Find online soil surveys at: http://websoilsurvey.nrcs.usda.gov. Find soil-test labs serving Oregon at: https://catalog.extension.oregonstate.edu/em8677.

Pasture seeding

Pasture and range reseeding can increase the quality and quantity of forage. In an arid climate, seeding at the right time can save a lot of time and money. For best results, time planting with available moisture. For example, planting in fall or early spring makes the most of winter rains and snow.

Oregon State University OSU Extension Service

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Once planted, avoid grazing reseeded pastures for at least the first growing season. Pull on a plant at the base. If the roots come out, it is not ready to be grazed. This establishment period may increase supplemental haying for a while, but the result will be increased pasture carrying capacity.

Weeds

Keep pasture plants vigorous, healthy, and competitive. Weeds will have less chance to establish. It's critical to know what weeds you have and control them when they are most susceptible to your selected method (cultural, chemical, mechanical, biological).

Two excellent resources on noxious weeds in Oregon include: http://weeds.ippc.orst.edu/pnw/weeds and http://www.weedmapper.org/.

Livestock

Weight

It's important to know the best weight for the type of animal you keep. For example, increased weight gain is desirable on livestock raised for meat. On the other hand, horse owners want to be sure that their horses are not too fat or too thin.

Most horses kept on pasture are overweight because they graze constantly. Horses can get all the nutrition and exercise they need from pasture in 2 to 4 hours of grazing. The rest of the time, keep them in a sacrifice area.

Shade and shelter

Animals need shade in summer and shelter in winter. This reduces stress and prevents undesirable weight loss. Shelter can be structures or trees planted as windbreaks.

Structures should be open-sided in the summer, oriented north-south, and at least 10 to 12 feet high to improve air movement and cooling.

Table 3. Sq ft of shed space recommended per head

Cow	30	Ewe w/lamb	12
Calf	15	Goat	10
Horse	80	Llama	25–30
Sheep	8	Alpaca	20–30

Plant windbreaks or shelter belts perpendicular to the direction of prevailing wind (this can vary depending on the land's topography). Ask for technical assistance when designing windbreaks to be sure that they are placed correctly to give the desired benefit.

How much water?

Cool, clean water is as essential for healthy livestock as it is for humans. Water assists digestion and the animal's ability to cool itself. Water consumption varies based on outside temperature, animal size, lactation, and feed intake.

Table 4. Estimated gallons water needed per day

Horse	8–12	Goat	1–4
Cow	7–12	Llama	2–5
Sheep	1–4	Alpaca	1–4

Water needs increase with higher outdoor temperatures.

Controlled water systems (such as troughs, nose pumps, or automatic water units) are best. Make sure your animals have fresh water several times a day, regardless of how you deliver it. Note that allowing livestock uncontrolled access to streams damages stream banks and riparian vegetation and degrades water quality. If you cannot provide off-stream water, a hardened access point can minimize damage to streams.

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For more information on pasture and livestock management, contact your local OSU Extension agent, Soil & Water Conservation District, or Oregon Department of Agriculture. Technical and financial assistance is available for livestock owners wishing to address resource concerns on their property.

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