

## Grazing Management for Spring Pastures

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Last month we discussed the reasons why many winter calving pastures are less vigorous in recent years. We also discussed the need to retain at least 2 inches of residual grass stubble at the end of winter grazing. The combined effects of open winters, warm spring temperatures, and extended drought that have weakened many winter calving pastures have also weakened many spring pastures. Now, with spring turn-out underway or close at hand, it's a good time for considering ways to keep your spring pastures healthy and productive. Appropriate grazing strategies in spring depend on whether you use seeded pasture or native rangeland.

### Native Rangeland

Recently completed research studies here at MSU indicate that moderate grazing in spring for more than 2 consecutive years may not sustain native bunchgrasses over the long-term. Light grazing year after year, however, does appear sustainable, but most ranchers will not find a low stocking rate to be economically feasible. Moderate grazing can be sustained with a 3-pasture rest-rotation system in which the spring grazing season is split into 2 halves (early spring, late spring), with each half lasting no more than 3-4 weeks (**Table 1**).

For rangeland in good health, we suggest initial stocking rates of 2.2 acres per AUM in the 15-19-

inch precipitation zone, and 3.3 acres per AUM in the 10-14-inch precipitation zone. Be sure to include the acres from all 3 pastures in your stocking rate calculations, even though you only use 2 pastures per year. For example, if each of the 3 spring pastures contain 200 acres in the 15-19-inch precipitation zone, an appropriate initial stocking rate for good condition rangeland would be 273 Animal Unit Months ( $600 \text{ acres} \div 2.2 \text{ acres/AUM} = 273 \text{ AUMs}$ ). For a 6-week spring grazing season, there would be enough forage for 182 Animal Units ( $273 \text{ AUMs} \div 1.5 \text{ months} = 182 \text{ AUs}$ ). And if the cows weigh 1250 lbs each ( $1250 \text{ lbs} \div 1000 \text{ lbs/AU} = 1.25 \text{ Animal Unit Equivalent}$ ), an appropriate stocking rate would be 146 pairs ( $182 \text{ AUs} \div 1.25 \text{ AUE} = 146 \text{ AUs}$ ) for the 6-week grazing season, with the 146 pairs spending 3 weeks in one pasture and 3 weeks in the other.

### Seeded Pasture

Well-managed seeded pasture can usually be stocked at higher rates than adjacent native rangeland. We suggest initial stocking rates of 1.0 acre/AUM in the 15-19-inch precipitation zone, and 1.5-2.0 acres/AUM in the 10-14-inch precipitation zone. Crested wheatgrass and Russian wildrye are 2 of the best grasses for spring pastures because they attain maximum growth 4-5 weeks earlier than most native bunchgrasses. Seeded pasture grazed annually in spring for only

**Table 1.** Three-pasture rest-rotation system for spring grazing on native rangeland.

	Pasture 1	Pasture 2	Pasture 3
Year 1	Early Spring	Late Spring	Rest
Year 2	Late Spring	Rest	Early Spring
Year 3	Rest	Early Spring	Late Spring
Year 4	Early Spring	Late Spring	Rest

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a brief period (i.e., less than 3 weeks) does not benefit much from rotational grazing. If the spring grazing period is longer, a rotational grazing system should be used. However, a seeded pasture can be used every

**Table 2.** Two-pasture deferred-rotation system for spring grazing on seeded pasture.

	Pasture 1	Pasture 2
Year 1	Early Spring	Late Spring
Year 2	Late Spring	Early Spring
Year 3	Early Spring	Late Spring

spring as long as it isn't grazed at the same time every year. We recommend a 2-pasture deferred-rotation grazing system in which the spring grazing season is split into 2 halves (early spring, late spring), with each half lasting no more than 3-4 weeks (**Table 2**).

Seeded pastures are best grazed at higher stock densities (i.e., number of animals per unit area of pasture) than native rangeland. A high stock density will achieve more uniform use across a pasture and prevent forage plants from becoming too coarse or "wooly". Stock densities of 3 to 5 cows (or their equivalent) per acre are usually appropriate.



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