

Old World Bluestem



What is prescribed grazing of Old World Bluestem?

Prescribed grazing is the planned and controlled harvest of plant growth with animals to achieve a desired objective.

This practice is most effective when used with other conservation practices that help manage and facilitate livestock distribution such as planned grazing systems and cross-fencing.

How it helps the land

Proper utilization of Old World Bluestem forage will improve or maintain the health and vigor of the established grass. The result is a

high quality forage and improved livestock health and productivity.

Well managed Old World Bluestem will also maintain or improve soil condition, provide erosion protection, improve water quality and increase water retention on the farm.

Where the practice applies

This practice applies to all established stands of Old World Bluestem, regardless of variety or cultivar, where grazing animals are managed.

Where to get help

For assistance in planning and applying prescribed grazing for your

established Old World Bluestem, contact your local Natural Resources Conservation Service office. Additional information may be obtained from the USDA Agricultural Research Station in Woodward, Oklahoma, and your local OSU Extension Center.

Requirements of prescribed grazing

Old World Bluestem perform best in a planned grazing system. Delay grazing Old World Bluestem until plants reach an average height of six inches. Adjust stocking rates to maintain an average height of four inches if using continuous grazing. When using a planned or rotational system, graze the pasture to a

three- to six- inch residual height as quickly and as evenly as possible, and then rotate to the next pasture. Consider the nutritional needs of the grazing animal and quality of the overall forage to determine how much to graze before rotation.

Rest periods in a grazing rotation for Old World Bluestem should coincide with the recovery rate of the Old World Bluestem. This would be from 25-35 days for dryland and 20-30 days for irrigated pastures, depending on rainfall and the time of year. Pastures divided into enough smaller paddocks for a grazing period of six days or less, will maintain optimum forage quality and animal performance while reducing spot grazing.

Applying the practice

This practice is considered applied when grazing utilization is carried out according to the above guidelines.

Other considerations:

✓ Several Old World Bluestem cultivars have been developed which are adapted to conditions in Oklahoma. These include *Plains*, *WW-Spar*, *WW-Ironmaster*, *Caucasian* and *Ganada*.

✓ These grasses begin growth around May 1 and usually continue active growth throughout the hottest part of the summer.

✓ Old World Bluestem can complement many forage programs because of the higher forage quality during the hottest part of the summer. Cows can graze Old World Bluestem to keep their calves gaining rapidly throughout

the summer. Early fall calves can be held to heavier weights by utilizing the grass for summer grazing. Old World Bluestem also provides high quality hay, if adequately fertilized and harvested as soon as seed heads begin to emerge.

✓ Fertilization is necessary for optimum forage production and quality. Periodic soil testing based on the desired yield goal, is recommended for economic application of nutrients. Fertilizer should be applied about 4 weeks after grass first greens up.

✓ Old World Bluestem responds well to nitrogen fertilizer. A minimum of 50 pounds of actual nitrogen per acre per year is needed for satisfactory production. Up to 150 pounds per acre can be profitable, depending upon rainfall and livestock prices.

✓ Higher rates of nitrogen are appropriate in eastern Oklahoma and on irrigated sites. The first application should be in late April or mid May. Split the applications so that about 50 pounds is applied each time. Generally, fertilizer should not be added after September 1, as this can result in excess growth just prior to a killing frost which may contribute to plant winter kill.

✓ Phosphorus and potassium should be applied according to soil test results. Old World Bluestem can produce up to 3-5 tons of dry forage per acre depending on the current fertility program and available moisture.

✓ Forage quality is highest at the start of growth in the spring and

decreases in quality as the season progresses. After that, it remains fairly constant. Quality again decreases at the onset of seed production. As with other warm season grasses, most of the forage production from Old World Bluestem occurs by mid July, however, these bluestems are more responsive to late summer and fall precipitation than are the native grasses.

✓ Prescribed burning of established stands of Old World Bluestems is effective in maintaining forage quality by removing low quality forage, controlling undesirable species and to promote seed production. Annual burning however, tends to reduce overall forage production significantly. Grazing is a preferred tool over fire for maintaining forage quality.

✓ Weed control should be applied as needed, utilizing grazing, mechanical or chemical means to control competition for moisture and nutrients (see AGRON-OK-33 Pest Management Job Sheet).

✓ Livestock water should be readily available in suitable quantities for the number and class of livestock grazing the Old World Bluestem. Ten to fifteen gallons per head should be adequate.

Maintaining the practice

Old World Bluestem requires soil testing to determine fertility needs, weed control, and proper grazing to maintain plant vigor and health.

To avoid winter damage, use should be deferred at least 30 days prior to the average killing frost date.

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