

## Short-Term and Supplemental Forages

**B**eef cattle producers may look to short-term or temporary forages to stretch production on fewer acres. Nearly all of the short-term choices are fast-growing annual crops. Traditionally, the sorghums and millets have been planted for summer forage. Increasingly, cereal grains, and forage “brassicas” are being planted for more fall, winter or spring forage. All of these vary greatly in size, regrowth potential, yield, feeding value, growing season, suitability for hay, grazing, and silage, and toxic or anti-quality components. Think through what your needs are as you consider the various alternatives.

### **Cool-season annual grasses, cereals & brassicas**

The following are considered to be cool-season crops. Although they most often are planted in early spring, many of them can be planted in late summer for autumn use.

**Spring-planted oats, spring wheat and spring barley** can be cut or grazed at late-vegetative through early-milk stage for the best feeding value. With advancing seed-head maturity, stems greatly decrease in feeding value. If these “spring cereals” are planted in mid- to late-summer, they will remain mostly leafy and can be grazed in the fall. Some wheat and barley varieties have “beards” (awns) that, when mature, become fibrous and detract from feeding value.

**Cereal or grain rye, winter wheat and winter triticale** (a cross of wheat and rye) can be planted in the late summer or fall for fall grazing. Or, they can be overwintered to be harvested or used for grazing in early spring.

**Forage rape and forage turnips are brassicas**, members of the “mustard family.” They are annual, cool-season crops for grazing. They are normally planted in early spring, but they can be planted in late summer for autumn grazing. They are useable in about 45 days. Forage rape and “tyfon” (a leafy top-growth, mustard-type crop similar to forage rape) should be grazed rotationally. Forage (bulb) turnips should be strip grazed for the most efficient use. The forage brassicas require nitrogen for good production. They have been used mostly by sheep producers.

**Annual ryegrass**, which is also called Italian ryegrass, has very rapid seedling emergence and growth to seed-head formation. It has a high nutritive quality and does not overwinter in Iowa. If allowed to mature and shatter seed, it could grow as a volunteer plant in later years. It has become an annual grassy weed in small grains in some parts of the country.

### **Warm-season annual grasses: sorghums & millets**

These are usually planted from mid-May through early July to be used for two to three months during summer and autumn. Most are ready for first harvest or grazing in about 50 days from emergence.

The most suitable for an alternative hay crop is **foxtail millet**, which will produce only one crop. **Sudangrass and Japanese millet** have larger, coarser stems, which makes them more difficult to harvest as dry hay. They are, however, better suited for multiple silage harvests.

**Hybrid sorghum X sudangrass and hybrid pearl millet** are multiple-cut, warm-season annuals. They are used for fresh-cut forage, pasture (rotation grazing is recommended) or silage. Varieties vary greatly in height, leafiness and grain yield, depending on the parent lines that make up the hybrid. Plant these mid-May through early-July. First growth is useable in about 50 days; regrowth is from tillers. Hydrocyanic acid poisoning (prussic acid) is a risk for hybrid sorghum X sudangrass if plants or tillers are cut or grazed at short height (less than 24 inches) or from a severely drought-damaged crop. Hybrid pearl millet grows somewhat slower than sorghum X sudangrass hybrids and may grow poorly in cool summer seasons. The millets have no hydrocyanic acid (prussic acid) poisoning risk.

**Forage sorghum** is a tall, one-cut, warm-season annual best used for fresh-cut forage or stored as silage. Hydrocyanic acid poisoning (prussic acid) is a risk if plants or tillers are cut or grazed at a short height (less than 30 inches) or from a severely drought-damaged crop. Grain

sorghum/forage soybean mixtures can be planted from late spring through early summer for a silage crop. They are harvestable in about 60 days. They require good fertilization for production. Base harvest on the stage of the sorghum component.

Sorghums and millets can accumulate nitrates when growing during extended drought.

**Teff, or “summer lovegrass,”** is relatively new to the Midwest and U.S. and is possible for an emergency summer grass hay crop. Teff is a warm-season, annual grass that has grown reasonably well in some Midwest locations. It establishes relatively quickly and is harvestable in 45 to 50 days, with multiple harvests possible. Seed sources are limited.

## Forage planting date, harvest date, yield and quality of annual forages

Crop	Planting Date	Seeding Rate	Maturity Date	Yield (DM T/A)	%Crude Protein	RFV <sup>1</sup>
Winter rye	September	1-2 bu	mid-May	3-3.5	12-13	85-90
Winter wheat	September	1-1/2 bu	late-May	3-3.5	11-12	85-90
Winter triticale	September	1-2 bu	early-June	3-3.5	11-12	85-90
Barley, sp tirticale, sp wheat, oats	mid-April	1-2 bu 2-3 oats	mid-June	2.5-3	12-13	100-110
Barley, sp tirticale & peas, oats <sup>2</sup>	mid-April 1-2	bu 2-3 oats	late-June	2.5-3	15-16	115-120
Wheat (spring)	mid-April 1	1/2 bu	early-July	2.5-3	11-12	100-110
Forage sorghum	June 1	15-20	mid-Sept	6-9	10-11	90-100
Forage sorghum	July 1	15-20	mid-Sept	2-4	10-11	90-100
Sudangrass & Japanese millet	June 1	20-25	mid-July	3-5	11-13	90-100
Sudangrass & foxtail millet	July 1	20-25	mid-August	2-3	11-13	90-100
Sorghum X sudan hyb & hyb pearl	June 1	20-30	mid-July	4-6	12-14	90-100
Sorghum X sudan hyb & hyb pearl	July 1	20-30	mid-August	3-5	12-14	90-100
Grain sorghum & soybeans <sup>3</sup>	June 1		September	6-7	11-12	95-110
Forage rape and turnip — tops	m-Jun/July	3-6 lb	September	2-3	20-25	150-250
Tops and roots			October	.5	16-20	-----
Oats, barley, sp triticale	August	1-2 bu 2-3 oats	October	1-2	10-11	140-150
Wheat (winter)	August	1-2 bu	October	0.5-1	12-13	150-160
Mixed winter wheat & oats	August	¾ bu & 1-2 bu	Oct & May	3-5	10-13	100-120

<sup>1</sup> RFV = Relative Feed Value, 100 equals approximately the digestibility and feed energy value of full bloom alfalfa.

<sup>2</sup> Add about 50 lb/A of field peas to cereal grain

<sup>3</sup> Add ¾ to 1 ¼ bu soybeans/A to 10 to 15 lb /A sorghum

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