

Small Grain Growth Stages & Harvest

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Cereal growth stages can be described in Feekes growth stages explained in the graphic below.

Key Growth Stage Terminology:

The Feekes scale of cereal development describes growth stages to help producers identify management stages.

Flag leaf stage (also called pre-boot stage) occurs when the flag leaf, the last leaf, is unfolded/unrolled (Feekes 8). The ligule of the flag leaf is visible (Feekes 9).

Boot stage occurs when the seed head swells in the flag leaf sheath but has not yet emerged. Right before the plant switches is concentration on developing the seed head instead of the leaves. Feekes 10.

Heading/Flowering stage occurs when the seed head has emerged from flag leaf sheath, and is no longer growing vegetatively. About 5-7 days. Early heading at 10.1 when awns and grain head become visible. Feekes 10.1-10.53.

Milk stage occurs when the kernels on seed head begin to thicken. If kernels are squeezed, you'll see a white, milky substance. About 10 days. Feekes 10.54-11.1.

Soft dough stage occurs when the kernels are well-filled and are a playdough/clay texture if squeezed.

About 7-10 days. Feekes 11.2.

Encourage spring tillering with 50 lbs N/acre at dormancy break/spring green-up with topdressing N at Feekes 5. Nitrogen applications at Feekes 8 and later can enhance grain protein levels but do not add more to yield. Feekes 4-5 is the optimal time to make a spring top-dress application and to apply post-emergence herbicide applications- check your state's weed control guide for herbicide recommendations. Soil testing is recommended.

For hay, haylage and baleage, spring small grains should be taken at the flag leaf for the best digestibility and tonnage. Protein levels decrease if cutting is delayed. Annual ryegrass and triticale can be harvested earlier to allow for regrowth and a second cutting.

For grazing, plants can be grazed when 8-10 inches tall. During rapid spring growth, grazing could start earlier when plants are about 6 inches in height to get animals to use as much as possible at the highest quality. If stocking rates are too low or you are unable to get animals to paddocks before seed head

appears, forage quality will dramatically decline. Being prepared to harvest for hay or haylage can help you maximize your spring production of high quality forage.

For silage, direct chop at soft dough stage before the crop becomes too dry.

