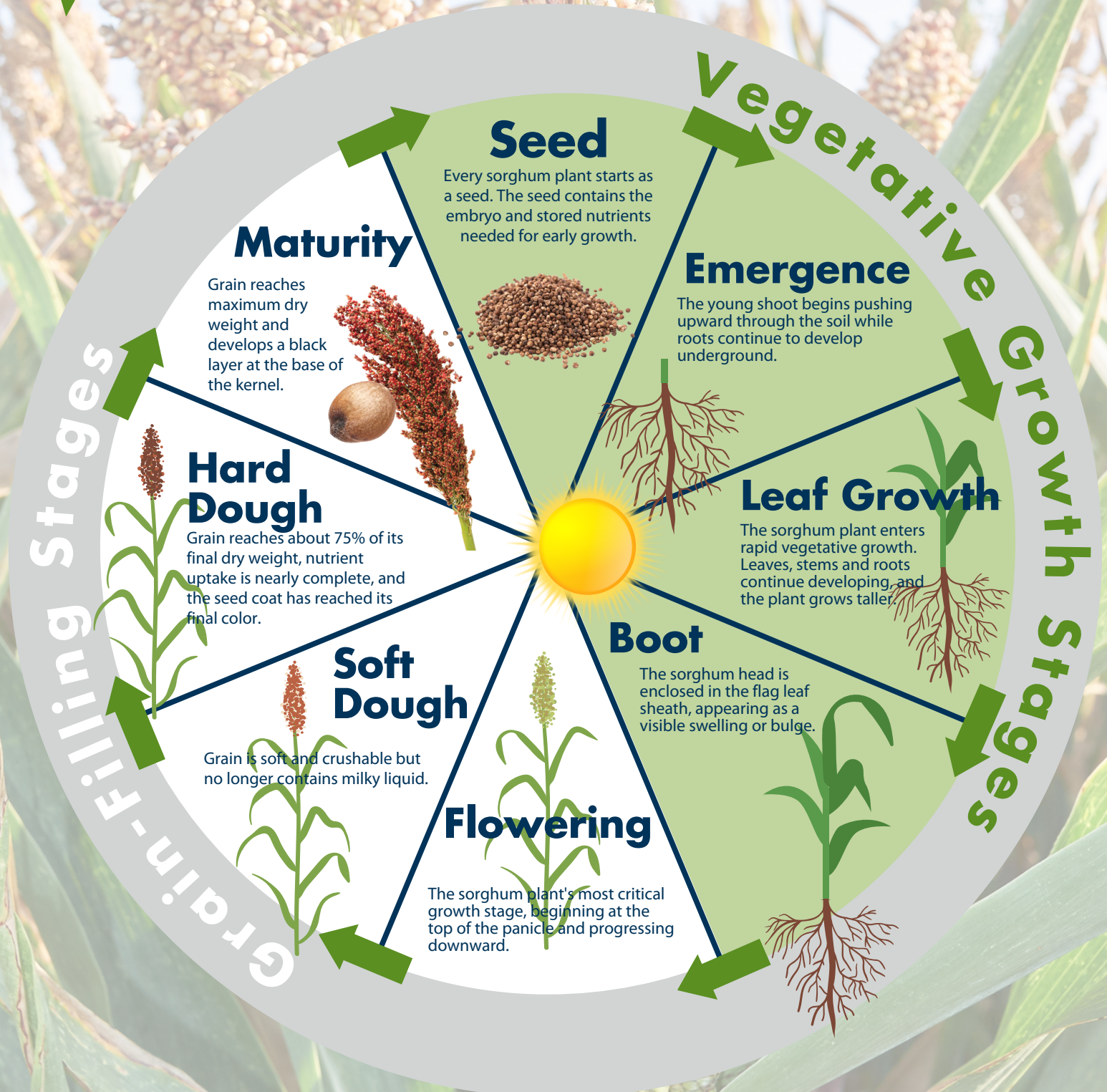


Life Cycle SORGHUM



Sorghum – A cereal grain crop grown for food, feed, forage, and biofuel production.

Seed – Contains the embryo and stored nutrients needed for growth.

Emergence – The stage when the young sorghum plant first breaks through the soil surface.

Three-Leaf Stage – The plant has developed three fully visible leaves.

Five-Leaf Stage – The plant has developed five fully visible leaves and is growing rapidly.

Growing Point Differentiation – The growing point begins developing future reproductive structures.

Flag Leaf – The final leaf produced before the seed head emerges.

Boot Stage – The developing seed head is enclosed in the flag leaf sheath, creating a visible bulge.

Flowering – The most critical growth stage, when flowers emerge and pollination begins.

Pollination – The transfer of pollen that enables grain development.

Panicle (Seed Head) – The flowering and grain-bearing structure at the top of the sorghum plant.

Grain Filling – The period when kernels accumulate starch and nutrients.

Soft Dough Stage – Grain is soft and crushable but no longer contains milky liquid.

Hard Dough Stage – Grain reaches about 75% of its final dry weight, and nutrient uptake is nearly complete.

Physiological Maturity – Grain reaches maximum dry weight and develops a black layer at the base of the kernel.

Photosynthesis – The process plants use to convert sunlight, water, and carbon dioxide into energy.

Root System – Underground structures that absorb water and nutrients and anchor the plant.

Monocot – A plant that emerges with a single seed leaf; sorghum is a monocot.

