



Growth Stage 3 Bloom to Harvest (61-115 days)

COMPLETING THE CROP

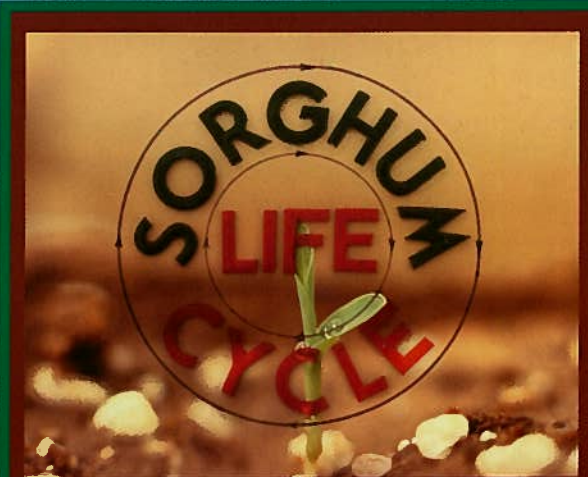
- Watch for midge during flowering.
- Late season greenbug damage will reduce test weight and increase lodging.
- Temperatures below 60° - 65° can cause pollen sterility and lack of complete seed set.
- Stay-green desirable to assure high test weight and minimize stalk disease/lodging.
- Bloom to physiological maturity (black layer) results in moisture at 30 - 35%.
- Each day after physiological maturity will reduce H₂O 1 to 1½ %.
- Test weight determined in part by length of grain fill; also seed size and density.
- Hybrids tend to vary in nodal, post-freeze stalk breakage.
- Irrigation will not increase yield after black layer forms - only maintains plant health.
- Adjust combine for minimum grain loss.



Affiliates of National Grain Sorghum Producers

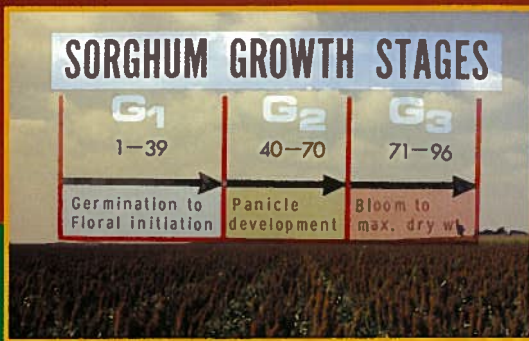


Contact us at: 1-800-658-9808



Checklist for Profitable Sorghum Production





Growth Stages of Sorghum

KEY DECISIONS PRIOR TO PLANTING

- Choice Of Hybrids:
 1. stability of performance over years (adaptation)
 2. potential of high yield in its maturity class
 3. hybrid with which your neighbors have success
 4. attend field days, study public and private data
 5. non-tillering hybrids may offer best opportunity to control plant population.
- Consider purity and germination of seed.
- Determine seed per pound and adjust planter according to seed drop per foot.
- Consider the use of a seed treatment to control insects.
- Give priority to moisture at planting as well as prospects for season.
- Use lower plant population and hybrid of an earlier maturity anticipating less than optimum moisture.
- Apply at minimum sufficient starter fertilizer - rely on soil test information.
- Finally, when possible, choose a planting date most likely to coincide with annual rainfall pattern or to avoid insect pressure.



Growth Stage 1 (1-30 days)

MANAGEMENT PRACTICES

- Plant at 65° soil temperature, 60" minimum - narrow row width desirable.
 - Determine planting depth on available moisture, chance of drying wind, known vigor of hybrid, and soil temperature.
 - Apply appropriate pre or post-emergent herbicide.
 - Where necessary, break crust e.g. with rotary hoe.
 - Side-dress additional N with minimum root pruning. Sorghum requires 35lbs. N and 11 lbs. P₂O₅ for each 1000 lbs. (18 bu.) of grain and 1200 lbs. of stover.
 - Inspect for presence of harmful insects e.g. greenbugs and chinch bugs.
 - Leaf number determined by maturity.
 - Final leaf number will be determined by change to head formation (panicle initiation).
- (Time in each growth stage will vary according to hybrid, planting date, and temperature.)



Growth Stage 2 Reproductive (31-60 days)

SIGNIFICANT FOR YIELD

- Head begins to form at growing point (8-12 leaf stage of development).
- Seed number critical to yield determined in GS-2.
- Drought stress or extreme temperature limits yield by reducing seed number; approximately 2" water needed to produce each 1000 lbs. grain after first 8-10".
- GS-2 is critical time for limited irrigation.
- Where needed apply post-emergent herbicide e.g. for grass and throw sufficient soil to base of plant to avoid root lodging.
- Disease or insect damage will reduce yield; grow resistant hybrids where appropriate.
- Purity of seed can be determined late in GS-2 as height mutants/tall outcrosses become evident.
- Extreme heat in this stage may cause blasting or floret abortion, and reduced seed number and head size.