

Timing Harvest Aid Applications by Boll Maturity



Requires more heat units prior to ethephon application
Ethephon will probably open this boll but it likely will not fluff



Fully formed seed leaves (cotyledons)
Ready for ethephon application



Fully Mature, blackened seed coat, should open with paraquat





Using Heat Units for Harvest Aid Decisions

Week	Altus Normal Heat Unit Accumulation/Week (what to expect based on long-term weather data)	Number of Nodes Maturing / Week moving up the stalk
1st Week of September	127 / week	2.1
2nd Week of September	111 / week	1.9
3rd Week of September	92 / week	1.5
4th Week of September	76 / week	1.3
1st Week of October	58 / week	1.0
2nd Week of October	41 / week	0.7
3rd Week of October	21 / week	0.3
4th Week of October*	2.5 / week	0.0

*Goes to Zero on October 23

Assumptions:

DD60 heat units / day = ((daily high temperature + daily low temperature) / 2) - 60

From a mature 1st position boll, it takes 60 additional HU to mature a 1st position boll one mainstem node up the plant.

From any given mature boll on a fruiting branch, it takes about 120 HU to mature an additional position when moving out on a fruiting branch.

It takes about 700-750 HU from a flower to boll with minimal maturity (45-70 days) that can be opened by ethephon application.

It takes about 850 HU from a flower to boll with good maturity that opens naturally.

Daily High & Low Temperatures	Daily Heat Unit Accumulation	Weekly Heat Unit Accumulation
100-75	27.5	193
90-65	17.5	123
80-55	7.5	53
70-45	0	0