



COTTON HARVEST AID SUGGESTIONS FOR OKLAHOMA – 2014
TREATMENTS LISTED ARE NOT NECESSARILY EQUALLY EFFECTIVE
RATES LISTED ARE UNITS OF PRODUCT PER ACRE

Dr. Randy Boman
Research Director and Cotton Extension Program Leader, Altus

CROP CONDITION	DRY TEMPERATURES GREATER THAN 80° (0-3 DAYS AFTER TREATMENT)	DRY TEMPERATURES LESS THAN 80° (0-3 DAYS AFTER TREATMENT)	WET TEMPERATURES LESS THAN 75° (0-3 DAYS AFTER TREATMENT)
HEIGHT: Short 14 inches or less YIELD: up to 500 lb/acre	Gramoxone (SL 2.0) 8-16 oz ¹	Gramoxone (SL 2.0) 8-16 oz ¹	Gramoxone (SL 2.0) 8-16 oz ¹
	Firestorm or Parazone 5.3-10.7 oz ¹	Firestorm or Parazone 5.3-10.7 oz ¹	Firestorm or Parazone 5.3-10.7 oz ¹
	Gramoxone (SL 2.0) 4-8 oz followed by (FB) Gramoxone (SL 2.0) up to 32 oz total ²	Gramoxone (SL 2.0) 8-12 oz FB Gramoxone (SL 2.0) up to 32 oz total ²	Gramoxone (SL 2.0) 8-12 oz FB Gramoxone (SL 2.0) up to 32 oz total ²
	Firestorm or Parazone 2.6-5.3 oz FB Firestorm or Parazone up to 21 oz total ²	Firestorm or Parazone 2.6-5.3 oz FB Firestorm or Parazone up to 21 oz total ²	Firestorm or Parazone 2.6-5.3 oz FB Firestorm or Parazone up to 21 oz total ²
	Gramoxone (SL 2.0) 6-10 oz + defoliant/desiccant ³	Gramoxone (SL 2.0) 8-12 oz + defoliant/desiccant ³	Gramoxone (SL 2.0) 10-24 oz + defoliant/desiccant ³
	Firestorm or Parazone 4-6.7 oz + defoliant/desiccant ³	Firestorm or Parazone 5.3-8 oz + defoliant/desiccant ³	Firestorm or Parazone 6.7-16 oz + defoliant/desiccant ³
	Ginstar 6-8 oz banded	Ginstar 8 oz banded	Ginstar 8-10 oz banded
	Aim EC 1-1.6 oz + COC with or without defoliant/desiccant	Aim EC 1-1.6 oz + COC with or without defoliant/desiccant	Aim EC 1-1.6 oz + COC with or without defoliant/desiccant
	Aim EC 1-1.6 oz + COC FB Aim EC 1-1.6 oz + COC ⁴	Aim EC 1-1.6 oz + COC FB Aim EC 1-1.6 oz + COC ⁴	Aim EC 1-1.6 oz + COC FB Aim EC 1-1.6 oz + COC ⁴
	ETX 0.9-1.7 oz + COC with or without defoliant/desiccant	ETX 0.9-1.7 oz + COC with or without defoliant/desiccant	ETX 0.9-1.7 oz + COC with or without defoliant/desiccant
	ETX 0.9-1.7 oz + COC FB ETX 0.9-1.7 oz + COC ⁴	ETX 0.9-1.7 oz + COC FB ETX 0.9-1.7 oz + COC ⁴	ETX 0.9-1.7 oz + COC FB ETX 0.9-1.7 oz + COC ⁴
	Display 1.0 oz + COC with or without defoliant/desiccant	Display 1.0 oz + COC with or without defoliant/desiccant	Display 1.0 oz + COC with or without defoliant/desiccant
	Display 1.0 oz + COC FB Display 1.0 oz + COC ⁴	Display 1.0 oz + COC FB Display 1.0 oz + COC ⁴	Display 1.0 oz + COC FB Display 1.0 oz + COC ⁴
	Sharpen 1 oz + MSO + AMS with or without defoliant/desiccant	Sharpen 1 oz + MSO + AMS with or without defoliant/desiccant	Sharpen 1 oz + MSO + AMS with or without defoliant/desiccant
	Sharpen 1 oz + MSO + AMS FB Sharpen 1 oz + MSO + AMS ⁴	Sharpen 1 oz + MSO + AMS FB Sharpen 1 oz + MSO + AMS ⁴	Sharpen 1 oz + MSO + AMS FB Sharpen 1 oz + MSO + AMS ⁴
Resource 6-8 oz + COC FB Resource 4-6 oz + COC ⁴	Resource 6-8 oz + COC FB Resource 4-6 oz + COC ⁴	Resource 6-8 oz + COC FB Resource 4-6 oz + COC ⁴	

COTTON HARVEST AID SUGGESTIONS FOR OKLAHOMA – 2014 (CONTINUED)

**NOT ALL TREATMENTS ARE EQUALLY EFFECTIVE
RATES LISTED ARE UNITS OF PRODUCT PER ACRE**

CROP CONDITION	DRY TEMPERATURES GREATER THAN 80° (0-3 DAYS AFTER TREATMENT)	DRY TEMPERATURES LESS THAN 80° (0-3 DAYS AFTER TREATMENT)	WET TEMPERATURES LESS THAN 75° (0-3 DAYS AFTER TREATMENT)
HEIGHT: Medium 15-24 inches YIELD: 500+ lb/acre	FOR TREATMENTS LISTED BELOW, A SEQUENTIAL APPLICATION OF PARAQUAT (OR OTHER DESICCANT ACTIVITY PRODUCT) 7-14 DAYS AFTER INITIAL TREATMENT WILL LIKELY BE NECESSARY TO SUFFICIENTLY CONDITION CROP FOR STRIPPER HARVESTING		
	Gramoxone (SL 2.0) 6-10 oz ¹ + defoliant/desiccant ³	Gramoxone (SL 2.0) 8-12 oz ¹ + defoliant/desiccant ³	Gramoxone (SL 2.0) 10-24 oz ¹ + defoliant/desiccant ³
	Firestorm or Parazone 4-6.7 oz ¹ + defoliant/desiccant ³	Firestorm or Parazone 5.3-8 oz ¹ + defoliant/desiccant ³	Firestorm or Parazone 6.7-16 oz ¹ + defoliant/desiccant ³
	Gramoxone (SL 2.0) 4-8 oz followed by (FB) Gramoxone (SL 2.0) up to 32 oz total ²	Gramoxone (SL 2.0) 6-8 oz FB Gramoxone (SL 2.0) up to 32 oz total ²	Gramoxone (SL 2.0) 6-8 oz FB Gramoxone (SL 2.0) up to 32 oz total ²
	Firestorm or Parazone 2.6-5.3 oz FB Firestorm or Parazone up to 21 oz total ²	Firestorm or Parazone 4-5.3 oz FB Firestorm or Parazone up to 32 oz total ²	Firestorm or Parazone 4-5.3 oz FB Firestorm or Parazone up to 32 oz total ²
	Ginstar 6-8 oz	Ginstar 8 oz	Ginstar 8-10 oz
	Aim EC 1-1.6 oz + COC + defoliant/desiccant	Aim EC 1-1.6 oz + COC + defoliant/desiccant	Aim EC 1-1.6 oz + COC + defoliant/desiccant
	Aim EC 1-1.6 oz + COC FB Aim EC 1-1.6 oz + COC ⁴	Aim EC 1-1.6 oz + COC FB Aim EC 1-1.6 oz + COC ⁴	Aim EC 1-1.6 oz + COC FB Aim EC 1-1.6 oz + COC ⁴
	ETX 0.9-1.7 oz + COC with or without defoliant/desiccant	ETX 0.9-1.7 oz + COC with or without defoliant/desiccant	ETX 0.9-1.7 oz + COC with or without defoliant/desiccant
	ETX 0.9-1.7 oz + COC FB ETX 0.9-1.7 oz + COC ⁴	ETX 0.9-1.7 oz + COC FB ETX 0.9-1.7 oz + COC ⁴	ETX 0.9-1.7 oz + COC FB ETX 0.9-1.7 oz + COC ⁴
	Display 1.0 oz + COC with or without defoliant/desiccant	Display 1.0 oz + COC with or without defoliant/desiccant	Display 1.0 oz + COC with or without defoliant/desiccant
	Display 1.0 oz + COC FB Display 1.0 oz + COC ⁴	Display 1.0 oz + COC FB Display 1.0 oz + COC ⁴	Display 1.0 oz + COC FB Display 1.0 oz + COC ⁴
	Sharpen 1 oz + MSO + AMS with or without defoliant/desiccant	Sharpen 1 oz + MSO + AMS with or without defoliant/desiccant	Sharpen 1 oz + MSO + AMS with or without defoliant/desiccant
	Sharpen 1 oz + MSO + AMS FB Sharpen 1 oz + MSO + AMS ⁴	Sharpen 1 oz + MSO + AMS FB Sharpen 1 oz + MSO + AMS ⁴	Sharpen 1 oz + MSO + AMS FB Sharpen 1 oz + MSO + AMS ⁴
	Resource 6-8 oz + COC FB Resource 4-6 oz + COC ⁴	Resource 6-8 oz + COC FB Resource 4-6 oz + COC ⁴	Resource 6-8 oz + COC FB Resource 4-6 oz + COC ⁴
	Ethephon 16-32 oz + Ginstar 3-5 oz	Ethephon 16-32 oz ⁵ + Ginstar 3-5 oz	Ethephon 21-32 oz ⁵ + Ginstar 3-5 oz
	Ethephon 16-32 oz + Folex 8-16 oz	Ethephon 16-32 oz ⁵ + Folex 16 oz	Ethephon 21-32 oz ⁵ + Folex 16 oz
	Ethephon 16-32 oz + Aim EC 1-1.6 oz + COC or + Display 1.0 oz + COC or + ETX 0.9-1.7 oz + COC or + Resource 6-8 oz + COC or + Sharpen 1 oz + MSO + AMS ⁴	Ethephon 16-32 oz ⁵ + Aim EC 1-1.6 oz + COC or + Display 1.0 oz + COC or + ETX 0.9-1.7 oz + COC or + Resource 6-8 oz + COC or + Sharpen 1 oz + MSO + AMS ⁴	Ethephon 21-32 oz ⁵ + Aim EC 1-1.6 oz + COC or + Display 1.0 oz + COC or + ETX 0.9-1.7 oz + COC or + Resource 6-8 oz + COC or + Sharpen 1 oz + MSO + AMS ⁴
	Finish 6 Pro 21 oz + defoliant (Folex 8 oz or Ginstar 3-5 oz)	Finish 6 Pro 21-32 oz ⁵ (defoliant may be required)	Finish 6 Pro 21-42 oz ⁵ (defoliant may be required)
	FirstPick 3 pts + Ginstar 3 oz	FirstPick 3-4 pts ⁵ + Ginstar 5 oz	FirstPick 4 pts ⁵ + Ginstar 6-8 oz

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RATES LISTED ARE UNITS OF PRODUCT PER ACRE**

CROP CONDITION	DRY TEMPERATURES GREATER THAN 80° (0-3 DAYS AFTER TREATMENT)	DRY TEMPERATURES LESS THAN 80° (0-3 DAYS AFTER TREATMENT)	WET TEMPERATURES LESS THAN 75° (0-3 DAYS AFTER TREATMENT)
HEIGHT: Greater than 24 inches YIELD: 1000+ lb/acre	FOR TREATMENTS LISTED BELOW, A SEQUENTIAL APPLICATION OF PARAQUAT (OR OTHER DESICCANT ACTIVITY PRODUCT) 7-14 DAYS AFTER INITIAL TREATMENT WILL LIKELY BE NECESSARY TO SUFFICIENTLY CONDITION CROP FOR STRIPPER HARVESTING		
	Ethephon 21-32 oz + Folex 8-16 oz	Ethephon 21-32 oz + Folex 16 oz	Ethephon 32-42 oz ⁵ + Folex 16 oz
	Finish 6 Pro 21 oz + defoliant (Folex 8 oz or Ginstar 3-5 oz)	Finish 6 Pro 21-32 oz ⁵ + defoliant (Folex 8-10 oz or Ginstar 4-6 oz)	Finish 6 Pro 32-42 oz ⁵ + defoliant (Folex 8-10 oz or Ginstar 6-8 oz)
	Finish 6 Pro 21-32 oz + Aim EC 1-1.6 oz + COC or + Display 1.0 oz + COC or + ETX 0.9-1.7 oz + COC or + Resource 6-8 oz + COC or + Sharpen 1 oz + MSO + AMS ⁴	Finish 6 Pro 21-32 oz ⁵ + Aim EC 1-1.6 oz + COC or + Display 1.0 oz + COC or + ETX 0.9-1.7 oz + COC or + Resource 6-8 oz + COC or + Sharpen 1 oz + MSO + AMS ⁴	Finish 6 Pro 32-42 oz ⁵ + Aim EC 1-1.6 oz + COC or + Display 1.0 oz + COC or + ETX 0.9-1.7 oz + COC or + Resource 6-8 oz + COC or + Sharpen 1 oz + MSO + AMS ⁴
	Ethephon 21-32 oz + Ginstar 3-5 oz	Ethephon 21-32 oz ⁵ + Ginstar 4-6 oz	Ethephon 32-42 ⁵ oz + Ginstar 6-8 oz
	Ethephon 21-32 oz ⁵ + Aim EC 1-1.6 oz + COC or + Display 1.0 oz + COC or + ETX 0.9-1.7 oz + COC or + Resource 6-8 oz + COC or + Sharpen 1 oz + MSO + AMS ⁴	Ethephon 21-32 oz ⁵ + Aim EC 1-1.6 oz + COC or + Display 1.0 oz + COC or + ETX 0.9-1.7 oz + COC or + Resource 6-8 oz + COC or + Sharpen 1 oz + MSO + AMS ⁴	Ethephon 32-42 oz ⁵ + Aim EC 1-1.6 oz + COC or + Display 1.0 oz + COC or + ETX 0.9-1.7 oz + COC or + Resource 6-8 oz + COC or + Sharpen 1 oz + MSO + AMS ⁴
	FirstPick 3-4 pts + Ginstar 3-5 oz	FirstPick 4-5 pts ⁵ + Ginstar 6-8 oz	FirstPick 6-7 pts ⁵ + Ginstar 6-8 oz
	FirstPick 3-4 pts + Aim EC 1-1.6 oz + COC or + Display 1.0 oz + COC or + ETX 0.9-1.7 oz + COC or + Resource 6-8 oz + COC or + Sharpen 1 oz + MSO + AMS ⁴	FirstPick 4-5 pts ⁵ + Aim EC 1-1.6 oz + COC or + Display 1.0 oz + COC or + ETX 0.9-1.7 oz + COC or + Resource 6-8 oz + COC or + Sharpen 1 oz + MSO + AMS ⁴	FirstPick 6-7 pts ⁵ + Aim EC 1-1.6 oz + COC or + Display 1.0 oz + COC or + ETX 0.9-1.7 oz + COC or + Resource 6-8 oz + COC or + Sharpen 1 oz + MSO + AMS ⁴
	Ginstar 6-8 oz	Ginstar 8 oz	Ginstar 8-10 oz
	LATE MATURING	CONDITIONING TREATMENT ONLY (Apply after daily heat units drop below 5, but at least 7 days before average first killing freeze date)	
Gramoxone (SL 2.0) 4-8 oz		Gramoxone (SL 2.0) 6-12 oz	Gramoxone (SL 2.0) 10-16 oz
Firestorm or Parazone 2.6-5.3 oz		Firestorm or Parazone 4-8 oz	Firestorm or Parazone 6.7-10.7 oz
Ethephon 32 oz		Ethephon 32-42 oz ⁵	Ethephon 32-42 oz ⁵
Ethephon 32 oz + Folex 8 oz or + Ginstar 8 oz or + Aim EC 1-1.6 oz + COC or + Display 1.0 oz + COC or + ETX 0.9-1.7 oz + COC or + Resource 6-8 oz + COC or + Sharpen 1 oz + MSO + AMS ⁴		Ethephon 32-42 oz ⁵ + Folex 8 oz or + Ginstar 8 oz or + Aim EC 1-1.6 oz + COC or + Display 1.0 oz + COC or + ETX 0.9-1.7 oz + COC or + Resource 6-8 oz + COC or + Sharpen 1 oz + MSO + AMS ⁴	Ethephon 32-42 oz ⁵ + Folex 16 oz or + Ginstar 8-16 oz or + Aim EC 1-1.6 oz + COC or + Display 1.0 oz + COC or + ETX 0.9-1.7 oz + COC or + Resource 6-8 oz + COC or + Sharpen 1 oz + MSO + AMS ⁴

FOOTNOTES

FB = Followed by

¹ - Use on cotton with natural leaf shed. High rates can cause green, healthy leaves to stick. There is some concern for the single high dose rate, especially on hairy-leaf cotton varieties. Reduced fiber quality with respect to leaf grades may be obtained. Always use a non-ionic surfactant at 0.25% v/v to 0.5% v/v when applying paraquat-based products (Gramoxone (SL 2.0), Firestorm, Parazone). For maximum paraquat desiccation activity, apply late in the day prior to a forecast for a bright, sunny morning. Make sure the cotton has at least 80% open bolls at application, use a sufficient paraquat rate and application to completely kill all foliage, then stripper harvest only when leaves are dry enough to “crunch” when crushed by hand. Proper ginning techniques must be followed in order to reduce trash in the stripped cotton and to minimize potential for lint quality loss. This typically includes adequate drying, pre-cleaning and two stages of lint cleaning. **Avoid stripper harvesting moist, dead leaves or poor leaf grades may be encountered. Adjacent small grains or other desirable vegetation may be severely damaged by paraquat drift so use appropriate caution.**

² - No more than 32 oz/acre total of Gramoxone (SL 2.0) (2 lb paraquat/gallon) or no more than 21 oz/acre total of Firestorm or Parazone (3 lb paraquat/gallon) may be applied as a cotton harvest aid. The need for and rate of Gramoxone (SL 2.0), Firestorm, or Parazone in a second application will depend upon green leaves and unopened bolls remaining. Use higher rates if regrowth is excessive.

³ - Tankmix partners with Gramoxone (SL 2.0), Firestorm, or Parazone can include Folex, Aim, Display, ETX, and Resource.

⁴ - No more than: 3.2 oz/acre total of Aim 2EC as a cotton harvest aid (in two applications) or 7.9 oz/acre for all uses in one season may be applied. No more than 2 oz/acre total of Display as a cotton harvest aid may be applied per season. Do not exceed 3.4 oz/acre total (in no more than 2 applications) of ETX as a cotton harvest aid (or 5.25 oz/acre for all uses) in one season. No more than 14 oz/acre (in no more than 2 applications with a maximum of 8 oz/acre per single application) of Resource may be applied during the growing season. Do not apply more than 2 oz/acre of Sharpen in a single application, and no more than 2 oz/acre total as a harvest aid per season.

⁵ - 6 lb/gallon ethephon-based product (such as Finish 6 Pro, FirstPick, Prep, Super Boll, Boll'd, Boll Buster, Setup, etc.) activity is determined by rate and temperature. At lower temperatures, boll opening response can be enhanced by increasing rate. Do not exceed a maximum of 2.0 lb ethephon active ingredient per acre per year through combined or repeated uses of any ethephon products.