

Crop, Situation, and Active Chemical Per Broadcast Acre	Weeds Controlled	Formulated Material Per Broadcast Acre	Time of Application	Method of Application and Precautions
<b>COTTON</b>				
For additional information on burndown herbicides see p. 23, WEED RESPONSE RATINGS FOR BURNDOWN HERBICIDES.				
<b>Preplant–Burndown</b>				
paraquat @ 0.47 to 0.94 lb/A	Most emerged broadleaf weeds and grasses.	<b>Paraquat (2 or 3 lb/gal formulations)</b> 32 to 64 oz/A or 1.25 to 2.5 pt/A. Use high rate on weeds larger than 2 inches. Add a surfactant (p. 3).	After beds are formed but prior to planting.	Apply for knockdown of existing vegetation prior to planting. Not dependent upon temperature for activity. Add 2,4-D or Clarity for improved control of horseweed. Add Cotoran or Diuron for improved control.
glufosinate @ 0.73 lb/A	Most emerged broadleaf and grass weeds.	<b>Glufosinate (280 SL formulations)</b> 40 oz/A. Follow label for surfactant use.	Prior to planting.	Add 2,4-D or Clarity for improved control of horseweed if preplant interval can be achieved. Use nozzles and pressure that create medium spray droplets. Use 10 gpa.
glyphosate @ 1 lb/A	Annual grasses and broadleaf weeds. Does not control entire-leaf and ivyleaf morningglories.	<b>Glyphosate (4 lb/gal formulations)</b> 2 pt/A.	Use prior to planting for vegetation knockdown.	Add 2,4-D or Clarity for control of horseweed.
glyphosate + carfentrazone @ 1 lb/A + 0.016 lb/A	Improved control of morning-glory and henbit.	<b>Glyphosate (4 lb/gal formulations) + Aim 2EC</b> 2 pt/A + 1.0 oz.	Use prior to planting for vegetation knockdown.	Add surfactant if glyphosate formulation does not contain one. Add 2,4-D or Clarity for improved control of horseweed.
glyphosate + 2,4-D @ 1 lb/A + 1 lb/A	Annual grasses and broadleaf weeds.	<b>Glyphosate (4 lb/gal formulations) + 4 SL 2,4-D Amine</b> 2 pt/A + 2 pt/A.	At least 28 days prior to planting.	Adding residual herbicide such as Caparol, Valor, Cotoran or Direx provides residual control of horseweed.
glyphosate + 2,4-D + rimsulfuron/thifensulfuron @ 1 + 1 + 0.25/0.25 lb/A	Annual grasses and broadleaf weeds.	<b>Glyphosate (4 lb/gal formulations) + 2,4-D + LeadOff</b> 2 pt/A + 1.5 pt/A + 1.5 oz/A.	At least 30 days prior to planting. Some injury from LeadOff has been observed.	For horseweed use 8 oz/A dicamba.
glyphosate + dicamba @ 1 lb/A + 0.25 lb/A	Annual grasses and broadleaf weeds including horseweed.	<b>Glyphosate (4 lb/gal formulations) + Clarity 4 SL</b> 2 pt/A + 8 oz/A.	At least 21 days prior to planting following 1 inch of rainfall.	Good option for glyphosate-resistant horseweed. Adding residual herbicide such as Valor, Caparol, Cotoran or Direx provides residual control of horseweed.
glyphosate + flumioxazin @ 1 lb/A + 0.032 to 0.063 lb/A	Annual grasses and broadleaf weeds.	<b>Glyphosate (4 lb/gal formulations) + Valor 51 WDG</b> 2 pt/A + 1 to 2 oz/A.	At least 14 days for 1 oz/A or 21 days for 2 oz/A + 1 inch of rain prior to planting.	Valor is rainfast in 1 hour. Provides residual control of horseweed. Add Clarity for resistant horseweed.
glyphosate + fomesafen @ 1 lb/A + 0.25 lb/A	Broadleaf weeds including Palmer pigweed.	<b>Glyphosate (4 lb/gal formulations) + Reflex 2 EC</b> 2 pt/A + 1 pt/A.	Apply 14-21 days preplant + 0.5 inch rainfall prior to planting.	Provides residual control of horseweed and pigweed for 6 weeks after application. Knocking or dragging top of beds prior to planting will remove herbicide and allow weed infestation.
glyphosate + flumioxazin + dicamba @ 1 lb/A + 0.063 lb/A + 0.25 lb/A	Annual grass and broadleaf weeds including horseweed.	<b>Glyphosate (4 lb/gal formulations) + Clarity + Valor 51 WDG or Afforia</b> 2 pt/A + 8 oz/A + 2 oz/A or 2.5 oz/A.	At least 30 days following 1 inch of rainfall prior to planting.	Provides residual control of horseweed and pigweed for 6 weeks after application.

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glyphosate + oxyfluorfen @ 1 lb/A + 0.25 lb/A	Annual grass and broadleaf weeds.	<b>Glyphosate (4 lb/gal formulations) + Goal 2XL</b> 2 pt/A + 1 pt/A.	Apply late February to mid March.	If planting directly into the stale seedbed, application of Goal requires at least 30 days prior to planting <b>and</b> at least three ¼-inch rainfalls. If these conditions are not met, a 2-inch surface incorporation is required before planting.

## SOYBEANS

For additional information on burndown herbicides see page 23, WEED RESPONSE RATINGS FOR BURNDOWN HERBICIDES.

### Preplant–Burndown

paraquat @ 0.47 to 0.94 lb/A	Annual broadleaf and grass weeds (existing vegetation).	<b>Paraquat (2 or 3 lb/gal formulations)</b> 32 to 64 oz/A or 1.88 to 3 pt/A in at least 20 gal water per acre for ground application. 5 to 10 gal for aerial application. Add 0.25% surfactant.	Use prior to planting on seedbeds that are not to be disturbed before planting. Use higher rate on weeds larger than 2 inches.	Good spray coverage is essential. Adding metribuzin will increase activity.
glyphosate @ 1 lb/A	Annual grasses and broadleaf weeds (existing vegetation). Weak on morningglories.	<b>Glyphosate (4 lb/gal formulations)</b> 2 pt/A. Use high rate on all but very small weeds.	Use prior to planting for vegetation knockdown.	Best results when applied in lower spray volumes, i.e., 5 to 10 gpa.
glufosinate @ 0.64 lb/A	Good option for glyphosate-resistant horseweed. Annual grasses and broadleaf weeds (existing vegetation).	<b>Glufosinate (280 SL formulations)</b> 36 oz/A.	Use prior to planting for vegetation knockdown.	Good coverage and warm weather will increase efficacy. Do not use prior to planting Liberty Link soybeans.
glyphosate or paraquat + metribuzin @ 1 lb/A or 0.47 to 0.78 + 0.25 to 0.75 lb/A	Postemergence control of existing annual weeds. See rating table for preemergence control with metribuzin.	<b>Glyphosate (4 lb/gal formulations) or Paraquat (2 or 3 lb/gal formulations) + Metribuzin 75DF</b> 2 pt/A or 32 to 64 oz/A or 1.8 to 3 pt/A + 0.33 to 1 lb/A DF. Add 0.25% surfactant.	At planting or prior to crop emergence.	Tank mix. Apply as above. Do not use on sensitive varieties listed on label. A list of metribuzin-tolerant varieties is available. Avoid use on high pH soils.
glyphosate or paraquat + chlorimuron/metribuzin @ 1 lb/A or 0.47 to 0.94 + 0.188 lb/A	Annual broadleaf and grass weeds. Improved control of cocklebur, hemp sesbania, morningglories, smartweed and prickly sida. See rating table for preemergence control with Canopy.	<b>Glyphosate (4 lb/gal formulations) or Paraquat (2 or 3 lb/gal formulations) + Canopy 75DF</b> 2 pt/A or 32 to 64 oz/A or 1.8 to 3 pt/A + 6 oz/A. Add 0.25% surfactant.	Prior to planting.	This is a reduced rate of Canopy. Higher rates have been shown to cause injury in minimum tillage culture. Tank mix with Dual or another grass herbicide, or follow this treatment with a postemergence grass herbicide for season-long grass control. A follow-up postemergence broadleaf treatment will also likely be needed.