

- Roundup Ready 2 Xtend soybeans: Apply XtendiMax, FeXapan (22 fl oz/A) or Engenia (12.8 fl oz/A) POST prior to Palmer amaranth exceeding 4 inches in height. These products may only be applied if farmers or commercial applicators have existing stocks and can only be used through individual state label cutoffs or July 31, 2020, whichever is more restrictive. Tavium (56.5 fl oz/A), the premixture of dicamba + s-metolachlor, can also be applied POST. Only approved spray additives and herbicides can be tank mixed with these products. Consult the label for days after planting and crop growth stage restrictions and additional precautions for use of these products.

4. Residual product tank mixtures with post-emergence herbicides. A residual Group 15 herbicide (i.e., Dual II Magnum, Warrant, Outlook or Zidua) should be tank mixed with the post-emergence herbicide application. It is essential for the post-emergence herbicide — Flexstar, Cobra, Ultra Blazer, Liberty (LibertyLink, LibertyLink GT27 or Enlist E3 soybeans only), Enlist One, Enlist Duo (Enlist E3 soybeans only) or registered dicamba products (Xtend soybeans only) — to have effective control of herbicide-resistant Palmer amaranth, since the residual herbicides will not control emerged plants. Several premixes (i.e., Prefix and Warrant Ultra) contain an effective POST with a residual herbicide. In Xtend soybeans, the premixture Tavium contains an effective POST with a residual herbicide. Consult the appropriate label or product website to confirm whether a tank mixture is approved.

5. Additional post-emergence herbicide applications if needed. In conventional or glyphosate-resistant soybeans, if Flexstar was used in the first post-emergence application, Cobra or Ultra Blazer are the only Group 14 herbicide options remaining. If plants are larger than 3 inches, you will have to use 12.5 fl oz/A of Cobra. The use of a methylated seed oil with these mixes may also improve control. In LibertyLink, LibertyLink GT27 or Enlist E3 soybeans, Liberty should be applied at rates ranging from 32 to 43 fl oz/A, depending on weed height. In Enlist E3 soybeans, a second application of Enlist One or Enlist Duo may be applied if applications occur no later than R2 soybeans. Follow-up applications in Xtend soybeans with a registered dicamba formulation may be more difficult

due to the 45 days after planting cutoff date and some state restrictions.

While following these strategies may not be 100% effective, they can substantially reduce herbicide-resistant Palmer amaranth populations. Additional cultural control measures, such as hand-weeding, should be implemented to eliminate any remaining herbicide-resistant Palmer amaranth plants from the field. It is also important to manage Palmer amaranth around field edges and ditch banks. Remember, one female plant can produce approximately 600,000 seeds. It is important to reduce seed production from this weed to stop its further spread. If you think you have this weed or other glyphosate-resistant/multiple resistant weeds in any of your fields, make sure these are the last fields you harvest. This will reduce the transportation of resistant weed seed to your other fields.



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Entire plant (pictured): Palmer amaranth grows 4 inches in less than five days during the time of post-emergence herbicide applications. A single female Palmer amaranth can produce approximately 600,000 seeds per plant.

For more information and links to additional resources, visit www.IWillTakeAction.com.

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