Glyphosate-resistant Italian ryegrass is prevalent across much of Mississippi. This guide is to help aid producers in the management and/or prevention of Italian ryegrass. Intensive scouting is necessary to determine if control options employed have failed. Timely applications are critical in controlling escaped populations.

The most effective residual glyphosate-resistant Italian ryegrass control has been achieved when residual herbicides are applied from mid-October to mid-November. Paraquat (Gramoxone SL at 2–3 pints per acre or the 3-pound paraquat formulation at 1.33–2 pints per acre) plus surfactant should be added to soil residual herbicides if glyphosate-resistant Italian ryegrass is emerged before application.

The S-metolachlor rate should be increased to 1.6 pounds per acre of active ingredient on heavier-textured soil.
tured soil. When applying a product that contains meto-
lachlor (Parallel PCS, etc.), the rate should be increased
by 25%.

(4) Winter applications should be made from mid-January
to mid-February and applied when glyphosate-resistant
Italian ryegrass is no more 4–6 inches tall.

(5) Preplant applications of Clethodim (Select Max, Arrow,
Volunteer, etc.) should be made at least 30 days before
planting corn or rice. The higher rate of Clethodim
should be used if no residual herbicide was applied in
the fall. **Multiple applications of Clethodim targeting
glyphosate-resistant Italian ryegrass are discour-
aged due to the potential for resistance development.**

(6) Spring applications should be made from March 1 to
March 20 based on careful scouting for emerged
glyphosate-resistant Italian ryegrass. **Postemergence
herbicide options for Italian ryegrass are limited
following corn emergence. Italian ryegrass should
be controlled before planting corn.** Spray coverage is
critical for weed control with contact herbicides such as
paraquat. Be sure to use a spray nozzle (flat fan, twin
jet, etc.) that will ensure thorough coverage of the
weed. Avoid use of AI (air induction) nozzles with con-
tact herbicides.

(7) Research indicates that the addition of atrazine (corn) at
1 quart per acre, metribuzin (soybean) at 4 ounces per
acre, or diuron (cotton) at 1.5 pints per acre will
increase efficacy of paraquat against glyphosate-resis-
tant Italian ryegrass. Sequential applications should be
based on careful scouting for emerged glyphosate-
resistant Italian ryegrass.