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Pre-plant Control of Cutleaf Eveningprimrose (*Oenothera laciniata*) and Wild Radish (*Raphanus raphanistrum*) in Conservation Tillage Cotton (*Gossypium hirsutum*)

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Cutleaf eveningprimrose and wild radish are problematic winter annual weeds in cotton conservation tillage systems. Neither weed is adequately controlled by glyphosate nor paraquat applied alone, so combinations with other herbicides are needed to control these weeds prior to planting. Field experiments in Georgia during 2001 and 2002 compared cutleaf eveningprimrose and wild radish control by glyphosate or paraquat applied alone or mixed with 2,4-D, carfentrazone, dicamba, diuron, flumiclorac, flumioxazin, prometryn, tribenuron, or tribenuron plus thifensulfuron. Several combinations were effective on wild radish. Glyphosate and paraquat alone controlled wild radish only 80 to 81% at 28 d after treatment (DAT), but glyphosate or paraquat plus 2,4-D, dicamba, tribenuron, or tribenuron plus thifensulfuron and paraquat plus diuron provided 92 to 97% control. Cutleaf eveningprimrose was more difficult to control, and glyphosate or paraquat alone controlled eveningprimrose only 56 to 60% at 28 DAT. Glyphosate plus dicamba, glyphosate plus 2,4-D, and paraquat plus 2,4-D controlled cutleaf eveningprimrose 94 to 97%, and paraquat plus dicamba and glyphosate plus flumioxazin provided 83% control. Control by other combinations was 75% or less. Cutleaf eveningprimrose and wild radish can be managed most effectively and economically by 2,4-D as part of a pre-plant weed control program. For wild radish, tribenuron, and tribenuron plus thifensulfuron are effective and economical alternatives to 2,4-D or dicamba.