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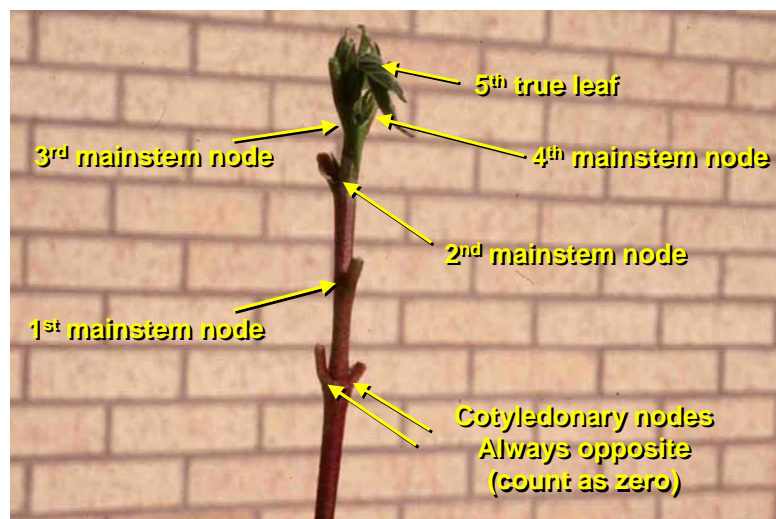
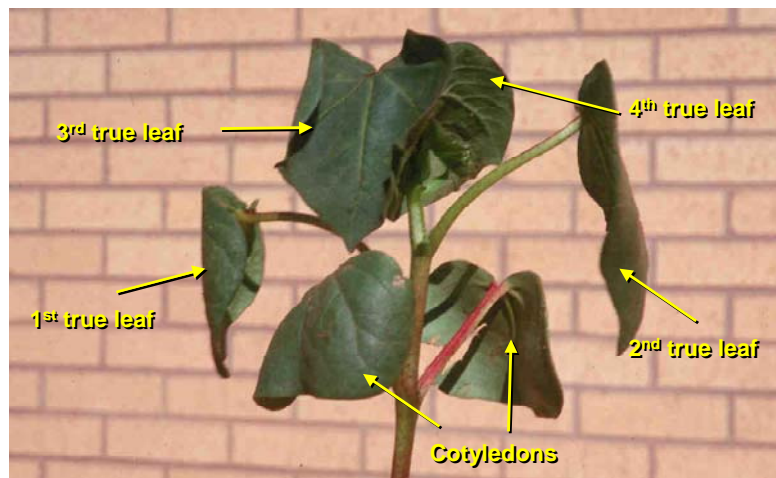
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Crop Production Guide Series

Staging Roundup Ready Cotton for Glyphosate Over-the-Top Window Closure

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As we move into early June, a lot of early planted fields typically near the end of the over-the-top (OT) glyphosate (Roundup) application window. Keep in mind that one has to target crop stage for OT glyphosate applications in Roundup Ready cotton. Proper staging for termination of the OT applications is important, as late applications can result in poor early season fruit retention - exactly what we DON'T want in our short season environment. Considerable thrips and/or environmental damage (hail, wind, blowing sand) can "rag up the plants." This severe stress can result in "stacked nodes" (extremely short internode lengths). This in turn can make staging the plants more difficult. If the first few mainstem leaves are lost due to environmental damage or to disease, thrips, etc., it becomes very important to count mainstem nodes to determine proper staging. A node is a bump or knot on the mainstem where leaves, vegetative and fruiting branches arise. The nodes at the bottom are called cotyledonary nodes because the cotyledons, or seed leaves are attached there. The two cotyledons are always opposite one another. Always count this as node zero. Then, begin counting up the mainstem until 5 nodes are found. This is where the 5th true leaf is located.



Once the 5th true leaf reaches 1" (or about the size of a quarter) the OT window has closed for the Roundup Ready varieties. If the leaf has been lost, then it is important to count the mainstem nodes.

If late glyphosate applications are made, then significant yield losses can be encountered. Field research conducted at the Texas A&M University Research and Extension Center at Lubbock indicated that when glyphosate was applied OT after the window closure, lint yields were decreased in 2 of 3 years from 5 to 19%. Plant condition, as affected by environmental factors, appeared to influence potential yield loss.

The glyphosate OT window closes once the 5th true leaf is 1 inch or covers a quarter.



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