Lambsquarters - Weed Of The Year

Lambsquarters is becoming more prevalent in agricultural fields. Reasons for the increase include reliance on POST herbicides to control weeds, a shift in the germination pattern to later emergence, and the increase in low- and high-level herbicide resistant biotypes. Glyphosate no longer controls every lambsquarters plant in a population when applied in a single application at the normal use rate of 0.75 lb ae/A (22 oz/A of RUWM and RUPM), especially when plants are under stress.

Lambsquarters is a summer annual weed producing 70,000 seeds/plant on average and 500,000 seeds/plant maximally. Seeds can remain viable for several years and the majority of the seeds emerge beyond the second growing season. Lambsquarters is genetically diverse and is primarily self-pollinated. Lambsquarters emerges early in the growing season and continues to emerge.

Mechanical Control:
Small plants can be easily controlled with most tillage passes. Larger plant may escape if tillage action is not aggressive. Larger and injured plants from tillage are more difficult to control with POST herbicides.

Chemical Control:
The most effective system of chemical control for lambsquarters includes PRE followed by POST herbicide applications. Many preemergence corn and soybean herbicides can effectively control lambsquarters if enough rainfall is received. Corn and small grains have the largest portfolio of herbicides to control lambsquarters. All other crops have very few POST herbicides to effectively control lambsquarters and timely applications to small weeds are necessary for maximum activity.

To maximize glyphosate activity, apply a minimum of 1.125 lb ae/A of glyphosate plus 0.25%v/v of NIS plus at least 4 pounds of AMS/100 gallons of spray solution. Apply the glyphosate during consistently warm temperatures and not during large temperature extremes. Apply glyphosate to lambsquarters that are less than 3 to 4 inches in height. Scout fields 14 days after application to determine effectiveness and apply a second POST application 21 to 24 days after the first application and after new growth is visible.

The herbicides listed below most effectively control lambsquarters:

Corn: See page 23 for additional herbicide information.
Soil-applied providing **E control** =
atrazine* (0.5 to 0.75 lb ai/A), Balance Flexx, Callisto, Camix, Harness/Surpass*, Integrity, Python, Sharpen, and SureStart.

Soil-applied providing **G-E control** =
atrazine* (0.5 lb ai/A), Permit, Prowl*.

POST-applied providing **E control** =
atrazine*, Callisto+ atrazine*, Halex GT (RR corn), Impact + atrazine*, Laudis + atrazine*, Lumax, Rage D-Tech, Status.

POST-applied providing **G-E control** =
Banvel*.

Soybean: See page 29 for additional herbicide information.
Soil-applied providing **E control** =
Authority (+ all premixes), Gangster, Pursuit Plus, Python, Sharpen, Sonalan, and Spartan.

Soil-applied providing **G-E control** =
Prowl*, Sencor, Treflan*, Valor.

POST-applied providing **G-E control** =
Extreme (RR soybean) and Basagran/Rezult/NDSU Soybean Micro-rate - see pages 25, 88, and 91.

Dry bean:
Soil-applied providing **E control** =
Pursuit Plus and Sonalan.

Soil-applied providing **G-E control** =
Permit, Prowl*, Treflan*.

POST-applied providing **G-E control** =
Basagran/Rezult/NDSU Dry bean Micro-rate - see pages 31, 88, and 91.

*Or generic equivalent