

## Burndown Application Reminders with Roundup® Brand Agricultural Herbicides

There is currently a lot of standing water in stubble fields as spring is around the corner. While work is being done, many growers are currently not working in the fields. Large snow melt, rains that went well past the point of runoff, and a good chance of more rain in the forecast may prevent field work for a while. Time may become limited as planting gets closer, and weeds could become larger than you would like to see for a good burndown application. The yield impact of early-season competition from an ineffective burndown application is very difficult to measure and all too often goes unnoticed. By following the START CLEAN, STAY CLEAN™ recommendations in the Roundup Rewards® program you can get off to a good start and protect your investment. These are some reminders to consider when using Roundup® brand agricultural herbicides to help maximize weed control in burndown applications.

### Use the Right Rate.

The rate for the field should be determined by the largest weed or the most difficult to control weed, not the most prevalent. If the field has predominantly 3 to 5 inch henbit, but also contains 8 to 12 inch lambsquarters, the recommended rate would likely be 32 oz/acre due to the height of the lambsquarters (Table 1).

**Table 1.** Recommended rates of Roundup PowerMAX® herbicide for various weed heights.

| Weed Height (inches) | Rate (oz. / acre) |
|----------------------|-------------------|
| < 6                  | 22                |
| 6 to 12              | 32                |
| > 12                 | 44                |

For water carrier volumes between 15 and 40 gallons per acre.

Annual weeds that are older and more mature or hardened-off may require the 44 oz/acre rate even if they are less than 12 inches tall. Cold temperatures can cause weeds to be short for their age, requiring a higher rate for good control. The higher rates may also be needed for tough-to-control weeds and where heavy weed densities exist. Check the Roundup herbicide label and use full labeled rates to achieve complete control of existing weeds.

### Add Ammonium Sulfate (AMS).

AMS conditions hard water, makes it easier for Roundup brand agricultural herbicides to penetrate into the plant, and leads to better weed control. It can help when weather conditions have caused weeds to stop actively growing like in situations of cool

### Herbicide Mixing Order, It does matter...

1. Fill tank 2/3 with water.
2. Add ammonium sulfate (AMS) at 8.5 to 17 pounds per 100 gallons of spray solution. Allow to fully dissolve to tie up any hard water ions.
3. Add any dry formulations, suspensions, wettable powders, or flowables. Agitate to fully dissolve any dry products.
4. Add drift reduction agents.
5. Add water soluble formulations (liquids).
6. Finally, add Roundup® brand agricultural herbicides.

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and cloudy weather. Weed growth is typically slowed when temperatures are less than 55° F. Cooler temperatures can reduce the amount of herbicide absorbed and translocated by the weeds. Use 8.5 to 17 pounds of spray grade AMS per 100 gallons spray solution.

### Use Tank Mixtures when Needed.

A tank mix partner should be a consideration when using Roundup® brand agricultural herbicides, especially when delayed burndown application timings may be involved. Better control of certain tough-to-control broadleaf weeds can be achieved by tank mixing Roundup brand agricultural herbicides with 2,4-D, dicamba, or Valor® (Table 2). Some tank mix partners could cause antagonism and reduce the absorption of herbicide into the target weeds. Therefore, always read and follow label recommendations.

**Table 2. Recommendations for tank mixes with Roundup® brand agricultural herbicides.**

| Crop    | Herbicide  | Rate per acre | Application Timing   |
|---------|------------|---------------|--|
| Corn    | dicamba    | 1 pint        | Labeled from preplant to 5th leaf stage or 8 inches. Be cautious on soils with low organic matter or coarse texture. |
| Corn    | 2,4-D      | 1 pint        | 7 to 14 days prior to planting or 3 days after planting but BEFORE crop emergence. POST on 4 to 18 inch corn.        |
| Soybean | 2,4-D      | 1 pint        | 7 days prior to planting.  |
| Soybean | dicamba    | 8 and 16 oz   | 14 and 28 days before planting plus 1 inch rain-fall.  |
| Soybean | Valor® XLT | 3-5 oz        | Burndown to 3 days after planting and before emergence.  |

*Rates of more than 1 pint of 2,4-D and dicamba require waiting 30 days to plant soybeans. Common rates and application timings are listed for dicamba and 2,4-D. Refer to individual product labels for details.*

### Minimize Field Tracking.

Often times, trips over a weedy field with any implement before a spray application can lead to inadequate herbicide uptake and translocation, and thus poor results. For instance, tire tracks from a fertilizer application can break weed stems, thus reducing weed control. Other operations that should be avoided just prior to a herbicide application are light tillage, planting, and any other traffic. Avoid traveling down previously used tracks, and time spray applications before these events to ensure herbicide effectiveness.

### Good Spray Coverage.

Calibrate and operate spray equipment to achieve the best coverage and reduce drift. The selection of nozzles, boom height, ground speed, and spray volume are important measures to improve coverage on targeted weeds.

### Application Timing.

Spring burndown applications work best when weeds are small (less than 6 inches) and actively growing. The timing of weed control in-crop also impacts yield potential. Weeds should be controlled prior to reaching 4 inches in the corn crop and between 6 to 8 inches in the soybean crop to maximize yield potential. As the season progresses, it is also important to follow the label restrictions for maximum rates and growth stages for Roundup Ready® corn and soybeans.

Remember to check fields for weed heights and identification before mixing as this is your last chance to select the right rate. Select the right rate based on the toughest to control weed and limitations for the crop.

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