



**BEST PRACTICE GUIDANCE FOR BREWERS ASSOCIATION MEMBER BREWERS:
MANAGING MALTING BARLEY AND
GRAINS SUPPLY CHAIN QUALITY**

TECHNICAL COMMITTEE AND SUPPLY CHAIN SUBCOMMITTEE



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Health concerns associated with the widespread use of glyphosate have created public interest and questions, both in Europe and in the U.S. This best practice guidance is designed to increase understanding, scrutiny and accountability at all levels of the North American malting barley, wheat and grains supply chain. While concern about glyphosate is not isolated to the brewing industry, brewers bear the ultimate responsibility for their purchasing decisions and for the quality of the ingredients they use to make beer.

Glyphosate is a broad-spectrum systemic herbicide used to kill weeds, especially annual broadleaf weeds and grasses that aggressively compete with grains and other crops. Often associated with use on genetically modified crops, glyphosate is utilized in a variety of settings including urban weed control, eradication of invasive species during habitat restoration, home and garden use as well as additional uses in the agricultural sector, such as post-heading treatment. Glyphosate is the active ingredient in Roundup® and other brands of herbicides; by volume it is one of the most widely used herbicides in the world.

Brewers should be aware of [industry-wide quality guidance](#) promulgated by the American Malting Barley Association (AMBA) in the U.S. and the [Beer and Malting Barley Research Institute](#) (BMBRI) in Canada. Brewers should clearly communicate their specifications to their suppliers and have systems in place that ensure their specifications are being met.

Glyphosate residues in malted grains are plausible given the use of the herbicide in typical crop rotations. Best practices that brewers can employ to ensure their supply of malted barley, wheat and other grains meet their required levels of quality and purity include:

- Communicate your expectations to your maltsters and suppliers in the form of a written contract specifying zero tolerance for malting barley, wheat and other grains that have been treated with glyphosate post-heading. Heading refers to the stage of plant development when the barley kernel bearing head has completely emerged at the top of the plant.
- Follow [Good Manufacturing Practices](#) and consider implementing a Hazard Analysis and Critical Control Point (HACCP) program in order to identify and manage potential threats to the quality and safety of your beer brands.
- Require your maltster or suppliers to perform testing and provide results to verify that your expectations regarding the presence of glyphosate in your supply of malting barley, wheat and other grains are being met.
- Be prepared to validate testing data with independent verification.

Important facts to consider if you are asked about glyphosate in malting barley or beer:

- Because glyphosate is closely associated with use on genetically modified crops (GMO), it is important to note that there is no GMO malting barley grown in North America.
- Glyphosate is not labeled for post-heading application in the U.S. on malting barley; therefore, post-heading treatment in the U.S. is illegal.
- In the U.S., AMBA [disapproves of post-heading herbicide treatments](#). AMBA malting and brewing members will not knowingly buy malting barley, wheat or other grains that have been treated with herbicide post-heading.
- Glyphosate is labeled for pre-harvest use on malting barley in Canada. However, its use as a post-heading treatment is prohibited in the vast majority of contracts maltsters execute with growers.
- In Canada, BMBRI members [require that malting barley not be treated with glyphosate](#) (or any other chemical) as a post-heading desiccant.
- Research has shown that use of glyphosate as a post-heading treatment on malting barley and wheat can result in diminished germination rates and thus adversely affect malt quality.

Note: In late February 2016, glyphosate (the active ingredient in Roundup® and other brands of herbicides) attracted [media attention](#) following a report that residual amounts of the herbicide were found in a number of German beers. The [amount of glyphosate detected](#) was low (the estimated intake for an adult was more than 1000 times lower than the currently estimated amount that can be ingested daily).