### Glyphosate-Based Herbicides



Farmers and home owners have been using glyphosate safely and effectively for more than 40 years. Herbicides, like glyphosate, allow farmers to adopt conservation tillage which reduces soil erosion and carbon emissions. However, the public conversation about glyphosate has increased recently and we are committed to providing the facts regarding the safety of glyphosate.

### Who regulates products like glyphosate for safety?

Before companies can make pesticides available to farmers, these crop protection tools must undergo comprehensive evaluations by regulatory authorities. The U.S. E.P.A requires pesticides to undergo more than 100 safety studies before they are approved. Regulatory authorities continue to consider new information to assess the safety of registered products. Glyphosate has a 40-year history of safe use for people, animals and the environment. Precise pesticide applications and strict regulations help ensure our food is safe to eat.

## Is glyphosate responsible for the impacts on bees and Monarch butterflies?

Bees and Monarch butterflies have many challenges. Challenges for bees include: Varroa mites, disease, poor nutrition, weather and intentional and unintentional pesticide exposure. Whereas, logging, weather, loss of habitat and the availability of their main food source, milkweed, has contributed to the decline of the monarch butterfly. We're collaborating with experts from universities, nonprofits, and government agencies to help restore monarch and pollinator habitat.

#### Is there a link between glyphosate and cancer?

No. Conclusions from regulatory authorities around the world, including the U.S. Environmental Pesticide Agency (EPA), the European Food Safety Authority (EFSA) and the European Chemicals Agency (ECHA), have concluded that glyphosate does not cause cancer. The sole outlier is the International Agency for Research on Cancer (IARC), which in 2015 issued an opinion that glyphosate is a "probable carcinogen". Both the active ingredient, glyphosate, and the surfactants that are used in formulations have been extensively tested and found not to be carcinogenic. The largest epidemiology study ever conducted on glyphosate-based herbicides, the 2018 publication of the U.S. Agricultural Health Study in the Journal of the National Cancer Institute, found no association between glyphosate-based herbicides and Non-Hodakin lymphoma.

### Does glyphosate cause weed resistance and superweeds?

Weed control has always been a challenge for agriculture. Some weeds have evolved and adapted to herbicides and are no longer affected by herbicides. Farmers use diversified weed management practices that include cover crops, tillage and crop rotation to minimize herbicide resistance.

# We're committed to helping people find information about the safety of our products. Here are some resources about glyphosate:

**CropLife International** champions the role of agricultural innovations in crop protection to support and advance sustainable agriculture: <u>bit.ly/2k8KYez</u>

Glyphosate Information Portal is an initiative of the European Glyphosate Task Force (GTF), a consortium of companies joining resources and efforts to provide data and studies concerning the safety of glyphosate: <a href="mailto:bit.ly/2D4GQUK">bit.ly/2D4GQUK</a>

**GMO Answers** enables consumers to ask questions about GMOs and the chemistries used in agriculture and get answers from independent and industry experts: bit.ly/1Xpqb1u

#### **International Food Information Council**

communicates science-based information on health, nutrition and food safety resource for the public good: bit.ly/2rziAmy

National Pesticide Information Center provides fact sheets summarizing the current knowledge on each pesticide ingredient, including mode of action, regulation, health effects and environmental fate: bit.ly/1NtpySm

**Safe Fruits and Veggies** provides science-based information about the safety of organic and conventional produce: <a href="https://bit.ly/2Pi3wrT">bit.ly/2Pi3wrT</a>

**Bayer** crop protection products, like glyphosate-based herbicides, are an integral part of modern, sustainable farming. They have a wide range of uses in orchards, vineyards, recreational settings/parks, homes and road and railway management, making it an important product for the public.

To learn more, visit: bit.ly/2zCM743

- // What is Glyphosate? (Video) bit.ly/2XO3cBW
- # Glyphosate Enabling No Till Healthy Soil Farmer Story (Video) bit.ly/2QphTHn
- // Transparency in Crop Science bit.ly/2Hb9g1K

Learn more about the Benefits and Safety of Glyphosate: bit.ly/2f5BsXN

