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April 25, 2018

Office of Pesticide Programs Regulatory Public Docket (7502P) U.S. Environmental Protection Agency One Potomac Yard (South Building) 2777 S. Crystal Drive Arlington, VA 22202

## RE: Docket No. EPA-HQ-OPP-2009-0361

The National Cotton Council (NCC) and the undersigned cotton producer interest organizations appreciate this opportunity to provide comments on the EPA's "Glyphosate: Draft Human Health Risk Assessment in Support of Registration Review" and supporting documents. Glyphosate remains critically important to U.S. cotton production. The NCC and these organizations strongly support the re-registration of glyphosate.

The NCC is the central organization of the United States cotton industry. Its members include producers, ginners, cottonseed processors and merchandizers, merchants, cooperatives, warehousers and textile manufacturers. A majority of the industry is concentrated in 17 cotton-producing states stretching from California to Virginia. U.S. cotton producers cultivate between 9 and 12 million acres of cotton, with production averaging 12 to 18 million 480-lb bales annually. The downstream manufacturers of cotton apparel and home furnishings are located in virtually every state. Farms and businesses directly involved in the production, distribution and processing of cotton employ more than 125,000 workers and produce direct business revenue of more than \$21 billion. Annual cotton production is valued at more than \$5.5 billion at the farm gate, the point at which the producer markets the crop. Accounting for the ripple effect of cotton through the broader economy, direct and indirect employment surpasses 280,000 workers with economic activity of almost \$100 billion. In addition to the cotton fiber, cottonseed products are used for livestock feed and cottonseed oil are used as an ingredient in food products, as well as being a premium cooking oil.

Effective weed management is one of many critical components of successful cotton production. Weeds play a major role in reducing cotton yields by an average of 30%. Weeds are very efficient users of resources, competing with the crop for space, sunlight, nutrients, and moisture; they may release toxic compounds and also provide shelter and food for insect pests and plant pathogens. Weeds also may interfere with harvesting of cotton and can reduce lint quality because of trash or staining. Control of weeds is essential to maximize yields and to produce a high-quality fiber.

Due to differences in plant growth rates, cotton requires better, more effective and timely weed control than many other crops. Cotton is especially sensitive to weed competition because it grows relatively slowly in the early developmental stages and does not reach full ground shade until eight or more weeks after germination.

Because of the impact of weeds on cotton production and their ever-present nature, U.S. cotton producers have increasingly utilized glyphosate and rapidly adopted glyphosate-tolerant transgenic cotton varieties. In 2015, 94% of U.S. cotton acreage were planted with herbicide tolerant and/or insect resistant cotton varieties.<sup>1</sup> Herbicide tolerant cotton has revolutionized cotton production and significantly reduced farming's environmental footprint by enabling producers to apply herbicides, such as glyphosate, that are more environmentally benign. During its 30 plus years of use, data has been accumulated from hundreds of toxicological and environmental studies. The overwhelming consensus of regulatory agencies and scientific organizations is that glyphosate used according to label directions poses no unreasonable risk to humans, wildlife, or the environment.

We appreciate EPA's cautious review of enormous numbers of merited scientific studies in the Draft Human Health Risk Assessment for glyphosate. We are aware that other international agencies have conducted a similar review and have concluded glyphosate is unlikely to be carcinogenic to humans (https://www.efsa.europa.eu/en/press/news/151112). On April 27, 2017 a Los Angeles Times article stated (http://www.latimes.com/opinion/op-ed/la-oe-kelly-miller-defending-glyphosate-20170427-story.html) "...government agencies from Japan to the EU, including the U.S. Environmental Protection Agency and another agency at WHO, have countered that glyphosate is not carcinogenic." A recent review by the Australian Pesticide and Veterinary Medicine Authority (APVMA) concluded "glyphosate use in Australia does not pose a cancer risk to humans" (https://apvma.gov.au/node/13891). EPA's Draft Human Health Risk Assessment and supporting documents continue to show significant scientific review in support of the conclusion that glyphosate is of relatively low oral and dermal acute toxicity; poses minimal human dietary risk; is not expected to pose undue risk to workers/applicators; adsorbs strongly to soil and is readily degraded by soil microbes; has minimal effects on birds, mammals, fish, and invertebrates; and is not carcinogenic to humans.

The rapid adoption of this technology in just 10 years demonstrates not only the safety of this product but also the benefits of the technology to commercial cotton producers. The following chart provides the cotton acreage estimates for 2015<sup>1</sup>, by state, and the percentage of planted cotton acres containing herbicide tolerant traits (burndown, over-the-top, etc.):

|       | Cotton    | % Herbicide           |
|-------|-----------|-----------------------|
| State | Acres     | Tolerant <sup>*</sup> |
| AL    | 315,000   | 93                    |
| AR    | 210,000   | 92                    |
| CA    | 47,000    | 61                    |
| GA    | 1,130,000 | 97                    |

<sup>&</sup>lt;sup>1</sup> USDA National Agriculture Statistics Service (NASS). June 30, 2016. *National Agricultural Statistics Service, Acreage*. United States Department of Agriculture, Washington, DC.

<sup>2015-2016:</sup> U.S. Dept. of Agriculture, National Agricultural Statistics Service, Acreage. June 30, 2016.

| LA     | 115,000   | 94 |
|--------|-----------|----|
| MO     | 185,000   | 92 |
| MS     | 320,000   | 98 |
| NC     | 385,000   | 96 |
| TN     | 155,000   | 98 |
| TX     | 4,800,000 | 86 |
| others | 760,000   | 86 |

\*Calculated using all biotech minus insect resistant only.

As environmental stewards, producers have both an economic and environmental incentive to use and preserve best available technologies. For example, since the commercialization of glyphosate-tolerant cotton, producers have widely adopted agronomic practices of reduced tillage (no-till and strip-till) farming. Soil conservation saves approximately 1 billion tons of soil per year in the U.S. and 306 million gallons of tractor fuel and its related emissions. According to Cotton Incorporated researchers, conservation tillage practices as adopted in the U.S. from 1996-2004 have an effect on carbon dioxide reduction that is equivalent to removing 27,111 cars from the road. The *Environmental Impact Quotient* (EIQ) developed at Cornell University can be used as a robust measure of the environmental impact of technologies, as it incorporates key toxicity and environmental exposure data related to individual products. The EIQ has decreased by 17% in the U.S., largely due to advances in genetically modified cotton as it relates to pesticide use reduction along with air, water, and soil conservation; at the same time, yields have increased 25% from 1994-2004.<sup>2</sup>

Thank you again for this opportunity to provide comments in support of this important crop protectant tool. Our organizations look forward to working further with you in your review of glyphosate and are pleased to provide additional data and information as needed.

Respectfully submitted,

National Cotton Council Agricultural Council of Arkansas Arizona Cotton Growers Association Arizona Farm Bureau Blacklands Cotton and Grain Association California Cotton Ginners and Growers Association Delta Council Georgia Cotton Commission Georgia Farm Bureau Louisiana Cotton and Grain Association Louisiana Farm Bureau Federation North Carolina Cotton Producers Association Oklahoma Cotton Council

<sup>&</sup>lt;sup>2</sup> A Method to Measure the Environmental Impact of Pesticides. J. Kovach, C. Petzoldt, J. Degni<sup>\*\*</sup>, and J. Tette, IPM Program, Cornell University, New York State Agricultural Experiment Station Geneva, New York.

Plains Cotton Growers Inc. SJV Quality Cotton Growers Association Rolling Plains Cotton Growers Association St. Lawrence Cotton Growers Association Southern Cotton Growers Association Southern Rolling Plains Cotton Growers Association South Texas Cotton and Grain Association Texas Farm Bureau Federation