



Arizona Farm Bureau Federation

325 S. Higley Rd, Suite 210
Gilbert, AZ 85296

October 2, 2017

United States Environmental Protection Agency
Washington, D.C. 20460

Re: EPA-HQ-OPP-2011-0931, Preliminary Ecological Risk Assessment of Benfluralin

To Whom it May Concern:

On behalf of more than 2,000 farm and ranch members across the state, Arizona Farm Bureau appreciates this opportunity to comment on the Preliminary Ecological Risk Assessment of the herbicide benfluralin.

Arizona is home to a unique agricultural industry. Our temperate climate and unparalleled stewardship of water and other natural resources allows us to grow a variety of crops year-round. Through these comments, Arizona Farm Bureau hopes to provide context for how benfluralin is used in two of our state's most valuable crops: lettuce and alfalfa.

Benfluralin Applications in Arizona

Arizona plants between 75,000 and 80,000 acres of lettuce every year. Known as the "winter lettuce capital of the world," the Yuma Valley in southwest Arizona produces 90 percent of the leafy vegetables consumed in America between November and March. Between 2010 and 2014, average cash receipts for Arizona lettuce crops exceeded \$550 million per year.¹ Lettuce sales consistently account for over 60 percent of cash receipts from Arizona produce crops, making these crops key drivers of Arizona's multi-billion dollar agricultural industry.²

Benfluralin (commercial name Balan) is one of three major pre-emergent herbicides used in lettuce, primarily to control grasses. In comparison to other widely-used herbicides, benfluralin has fairly limited application in lettuce crops. For example, as a pre-emergent, Balan's label instructions restrict its use to once per growing season (or once per year). And, in comparison to other common products, the spectrum of weeds controlled by the product is more limited. As a result, producers often apply Balan in conjunction with other herbicides, such as Kerb or Prefar.

¹ A. Kerna, et al. 2016. The Contribution of Arizona's Vegetable and Melon Industry Cluster to the State Economy. University of Arizona College of Agriculture and Life Sciences Department of Agricultural and Resource Economics.

² Ibid. Moreover, lettuce tends to be a driver for Arizona produce sales: when cash receipts for lettuce are high, sales of vegetables as a whole are typically higher state-wide.

However, despite its limited spectrum of use, benfluralin has proven to be an important and widely used tool for Arizona's multi-million dollar lettuce industry. Over the past eight years, Arizona lettuce producers have used benfluralin on an average of 21 percent of the lettuce planted in the state. In 2015, producers used benfluralin on 21,377 acres, more than 27 percent of the total lettuce acres planted in that year.³

Although they use the product to a lesser extent than lettuce producers, Arizona alfalfa producers rely on benfluralin as well. Benfluralin is applied as a pre-emergent herbicide prior to replant of alfalfa crops and is used at most once per year, in accordance with label instructions. It is one of only two pre-emergent herbicides used at replant of alfalfa crops, making it an important tool in an alfalfa producer's pest control regimen. And similar to lettuce, alfalfa is an important commodity to the economic success of Arizona agriculture. Throughout central and southern Arizona, alfalfa growers produce some of the nation's highest-quality, pest-free alfalfa. Arizona growers can expect 8-10 cuttings of alfalfa each year, which allows them to ship Arizona hay across the state, nation, and world. Thanks to this extensive market, the value of Arizona alfalfa production in 2016 exceeded \$388 million.

Concerns with Risk Assessment

The preliminary ecological risk assessment concluded that benfluralin is potentially dangerous to mammals and birds. It is important to note, however, that each of the high RQs noted in the study (as high as 6.64 for bird and 4.56 for mammals) reflected the result of *chronic* exposure to benfluralin.⁴ Acute and sub-acute exposures, on the other hand, posed extremely low rates of toxicity and risk. As explained above, benfluralin use in Arizona is limited to once-per-season applications at the beginning of a planting season. This makes potential for chronic exposure to birds or mammals minimal at best, because the herbicide is not applied on a continuous or frequent basis.

Moreover, benfluralin has a history of safe and effective use. The risk assessment indicates that since it was first registered, only six major incidents involving benfluralin have been reported. Three of those six were the result of misuse of the product (one an intentional misuse), and two were attributed to a pesticide used in conjunction with benfluralin, rather than to benfluralin itself.

Given the importance of benfluralin to vital sectors of Arizona agriculture, limiting the potential applications of this herbicide may prove extremely problematic for the lettuce and alfalfa industries. Arizona Farm Bureau urges EPA to interpret the results of the preliminary ecological risk assessment in light of the totality of the circumstances, including product's many benefits.

³ A. Fournier, W. Dixon, P.C. Ellsworth. 2017. Arizona Pest Management Center Pesticide Use Database. University of Arizona Cooperative Extension.

⁴ F. Farruggia, C. Rossmeis. 2017. Preliminary Ecological Risk Assessment for Benfluralin. United States Environmental Protection Agency.

Thank you for your time and consideration of our comments.

Sincerely,

A handwritten signature in cursive script, reading "Kevin Rogers". The signature is written in dark ink and is positioned above the printed name and title.

Kevin Rogers, President
Arizona Farm Bureau Federation