

Short abstract for ASSBT

Don W. Morishita^{1*}, Joel Felix², and Prashant Jha³. ¹University of Idaho, Kimberly R&E Center, 3806 N. 3600 E. Kimberly, ID 83341, ²Oregon State University, Malheur Experiment Station, 595 Onion Ave., Ontario, OR 97914, ³Montana State University, Southern Ag Research Center, 748 Railroad Hwy, Huntley, MT 59037. **Survey for glyphosate resistant weeds in eastern Oregon and Southern Idaho sugar beet growing areas.**

Glyphosate resistant weeds are a major concern in the US where sugar beet, corn, and soybean are grown. In the eastern Oregon and southern Idaho sugar beet growing areas, glyphosate resistant kochia has been confirmed and glyphosate resistant Russian thistle and common lambsquarters has been reported. A survey was conducted in 2015 and 2016 in an attempt to determine the presence and extent of glyphosate resistant weeds in this geographical area. A field bioassay plant collection kit was put together following a published procedure. However, rather than using petri plates, cuttings of suspected plants were placed in 45 ml centrifuge tubes filled with 30 ml of agar mixed with glyphosate. A protocol for sampling areas and collecting plants was shared with The Amalgamated Sugar Company Crop Advisors to assist with the plant collection in 2015 and 2016. None of the samples collected in 2015 were confirmed resistant to glyphosate. Samples collected in 2016 are in the process of laboratory confirmation. One sample in south central Idaho has confirmed resistance to glyphosate, and other samples are continuing to be analyzed. Preliminary results from the bioassay kits indicate glyphosate weed resistance is spreading in eastern Oregon and southern Idaho. The need for growers to implement stronger resistance management practices continues to increase.