

INTRODUCTION OF INDAZIFLAM FOR WEED CONTROL IN FRUIT, NUT, AND GRAPE CROPS. Mark D. Parrish, R. Darren Unland, and William J. Bertges, Director of Herbicide Development, Product Development Manager, and Senior Scientist, Bayer CropScience, Research Triangle Park, NC 27709. (164)

Indaziflam is a new cellulose biosynthesis inhibitor under development by Bayer CropScience for broadspectrum weed control in perennial fruit, nut, and grape crops. This new active ingredient will be formulated as a suspension concentrate and marketed as Alion® for control of monocot and dicot weeds when applied alone or in a tankmix with other herbicides. Pending approval by EPA, Alion® will provide residual preemergence weed control for several months with excellent crop safety. The Alion® formulation readily mixes with postemergence herbicides to add residual control to burndown products such as glufosinate. Over 500 field trials have been conducted throughout the US since 2003 and have demonstrated that 73 – 95 g ai ha⁻¹ indaziflam will provide 80% or greater control of key weeds 90 days or longer after treatment. Length of control has been equal to or longer than all other registered products tested at the manufacturer's recommended use rates. Indaziflam will be an effective tool to manage weed populations that are resistant to other modes of action including EPSP synthase inhibitors, ALS inhibitors, and PSII inhibitors. Indaziflam and Alion® have very favorable toxicological properties with no evidence of effects on immunotoxicity, developmental toxicity, reproductive toxicity, genotoxicity or carcinogenicity. Based on residue tests results, Bayer CropScience anticipates a 14 day or less preharvest interval for all crops and no commodity trade restrictions.