

PINOXADEN – A NEW POSTEMERGENCE GRAMINICIDE FOR WHEAT AND BARLEY. Peter C. Forster and Donald J. Porter, Syngenta Crop Protection, Greensboro, NC 27419.

Pinoxaden is a new selective herbicide discovered by Syngenta Crop Protection and being developed for the control of annual grass weeds in wheat and barley. Pinoxaden is a novel grass active compound from the chemical class phenylpyrazolin and is formulated with the safener cloquintocet-mexyl. Pinoxaden is taken up primarily through leaves of treated grasses and then translocated basipetally and acropetally in plants. Pinoxaden has excellent crop safety to all varieties of spring wheat, winter wheat and barley. Results from wheat and barley tolerance trials indicate crop safety is maintained even at double the use rate without any negative effect on grain yields. Pinoxaden can be applied in the fall or spring from the 2-leaf stage up to the pre-boot stage of crops. At a use rate of 8.2 oz/A, Pinoxaden effectively controls wild oat, (*Avena fatua*), foxtails (*Setaria* species), Italian ryegrass (*Lolium multiflorum*), Persian darnel (*Lolium persicum*), barnyardgrass (*Echinochloa crus-galli*), as well as several other annual grasses. Pinoxaden can be tank mixed with broadleaf herbicides for flexible one-pass grass and broadleaf weed control in wheat and barley crops. Results from plant-back trials following Pinoxaden applications show no rotational crop limitations the following growing season. Pinoxaden has a very favorable toxicological and ecotoxicological profile. Based on its broad grass weed control spectrum, flexibility of use, and excellent crop safety, Pinoxaden will become a new standard for grass weed control in wheat and barley crops.