

BROADLEAF WEED CONTROL WITH KIH-485. Peter J. Porpiglia* and Yoshihiro Yamaji, K-I Chemical U.S.A., Inc. and Osamu Watanabe, Kumiai Chemical Industry Company, Ltd., Shizuoka, Japan. (15)

KIH-485 is a new herbicide under development by Kumiai Chemical Industry Co., Ltd and Ihara Chemical Industry Co., Ltd. as a pre emergence herbicide for corn and soybean. While the initial weed targets primarily included annual grasses, it was soon discovered that many broadleaf weeds were also well controlled. For several years, researchers have been quantifying broadleaf weed control activity of KIH-485 compared to other standard pre emergence herbicides such as s-metolachlor and acetochlor. In medium textured soils, such as loams and silty clay loams, KIH-485 was tested at rates of 166 and 209 grams of active ingredient per hectare. KIH-485 was compared to s-metolachlor at a 1:8.5 ratio and to acetochlor at a 1:9.4-10.4 ratio taking into account different soil textures. At these fixed rate comparisons, KIH-485 was 2-35% more effective than s-metolachlor on *Amaranthus*, *Chenopodium*, *Sida*, *Solanum*, *Abutilon*, *Ipomoea*, and *Polygonum* species. KIH-485 was 4-20% more effective than acetochlor on *Amaranthus*, *Sida*, *Abutilon*, *Ipomoea* and *Polygonum* species. On several broadleaf species there was no significant difference between KIH-485 and acetochlor. Results presented are averaged across all soil moisture conditions. Since soil moisture can affect the performance of these products, studies are currently underway to clarify the effect of soil moisture on weed control.