

TWO YEARS RESULTS WITH KIH-485: A NEW, BROAD-SPECTRUM HERBICIDE. Peter J. Porpiglia, Kumiai America, White Plains, NY; Masao Nakatani, K-I Research Institute, Fukude, Japan; and Ryohei Ueno and Yoshihiro Yamaji, Kumiai Chemical Industry Co., Ltd., Tokyo, Japan.

KIH-485 is a new, preemergence herbicide from Kumiai Chemical Industry Co. Ltd. for use in corn and other crops. The objectives of wide-scale field-testing in 2003 and 2004 throughout the US corn-belt were (1) to confirm the spectrum of activity at targeted use rates in various soil textures and (2) compare weed control characteristics of KIH-485 to s-metolachlor, acetochlor and other pre-emergent grass herbicides. Field studies confirmed that KIH-485 gives excellent control of important annual grasses in the *Setaria*, *Digitaria*, *Echinochloa*, *Panicum*, and *Sorghum* genera as well as representative broadleaf weeds in the genera *Amaranthus*, *Datura*, *Solanum*, *Abutilon*, *Chenopodium* and others. KIH-485 also generally provided better activity on difficult to control grasses such as *P. miliaceum*, *P. texanum*, and *S. bicolor* than current commercial pre-emergent herbicides. At target rates, mixtures with atrazine or other herbicides offered little additional control of grasses over KIH-485 alone, but did provide some benefit for control of certain broadleaf species on heavier soils. KIH-485 provided good residual activity and appears well suited to a range of preemergence application timings. Corn tolerance was generally excellent but rate dependent. Mode-of-action and characterization studies of KIH-485 are underway. The chemistry has not yet been released.