

DANIELS, JEFF, CHARLES HICKS, KELVEN LUFF, JOHN O. MARTIN, DEAN W. MARUSKA, GEORGE SIMKINS, MICHAEL SMITH, and KEVIN B. THORSNESS*, Bayer CropScience, 2 T.W. Alexander Drive, Research Triangle Park, NC 27709. **Crop protection innovations in sugarbeet - Bayer CropScience.**

ABSTRACT

Bayer CropScience has developed new innovations for crop protection in sugarbeet. Bayer is developing clothianidin as Poncho Beta seed-treatment, a new highly systemic insecticide with a wide margin of crop safety. Poncho Beta controls beet leaf hopper (*Circulifer tenellus* (Baker)), reducing the incidence of curly top virus, and sugarbeet root maggot (*Tetanops myopaeformis*), wireworm (*Limonius californicus* (Mannerheim)), springtail (*Collembola* spp.), leaf miner (*Pegomya hyoscyami*), black bean aphid (*Aphis fabae*) and other insect pests. Poncho Beta treatments have also resulted in significantly more harvestable sugar per acre versus untreated controls. Bayer will introduce in 2007 three new "Ultra" emulsifiable concentrate sugarbeet herbicide formulations. The premix desmedipham and phenmedipham (153 & 153 g ai/L) will be sold as Betamix Ultra Herbicide. The premix of desmedipham, phenmedipham and ethofumesate (107 & 137 & 166 g ai/L) will be sold as Progress Ultra Herbicide. Desmedipham at 306 g ai/L will be sold as Betanex Ultra Herbicide. The new Ultra formulations provide equivalent weed control to the previous versions of these herbicides at approximately half the volume. In 2007, Bayer CropScience will offer a new soluble concentrate formulation of Gem, a strobilurin fungicide for control of cercospora leaf spot (*Cercospora beticola*), powdery mildew (*Erysiphe polygoni*) and suppression of rhizoctonia stem canker (*Rhizoctonia solani*). During 2008, Bayer plans to introduce Proline into the sugarbeet disease control market. Proline is a new dimension triazole fungicide which will control all three of the before mentioned diseases. When used in rotation with each other, Gem and Proline will provide growers with a season long disease control program offering sound resistance management practices.