Desiccation Influence on Sunflower Plant Drydown. (C02johnson182550-Poster)

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Abstract:

Management practices for recently developed stay-green sunflower (Helianthus annuus L.) hybrids to chemical desiccation is needed by producers. The objective of this study was to determine the effect of chemical desiccation on plant drydown and yield of conventional and stay-green hybrids. Field evaluations were conducted at Carrington, Casselton and Prosper, ND, in 2000 and 2001. The study was a RCBD in a split-split plot arrangement. Desiccant (Gramoxone), hybrid, and moisture date were main, subplot, and subsub plot, respectively. When desiccated, receptacle moisture declined more rapidly for the conventional than stay-green hybrids. Greater stalk moisture loss for stay-green hybrid Bigfoot was related to curvature of the stem near the receptacle and greater desiccant contact. Lack of interactions with desiccant and hybrid, indicated a similar achene moisture response for both conventional and stay-green hybrids. Achene moisture was 31, 57, 31, and 31 g kg-1 less at moisture dates 7, 14, 21, and 28 d, respectively, for desiccated than control treatments. Yield reduction was noted when desiccation occurred at achene moisture greater than 500 g kg-1, but not at levels between 500 g kg-1 and the current recommendation of 350 g kg-1 achene moisture.

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