

10 Nebraska growers' and crop consultants' knowledge and implementation of IPM of western bean cutworm

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Western bean cutworm (WBC) (*Striacosta albicosta* Smith) is a native noctuid pest of corn and dry beans in North America. While this pest has expanded its range greatly in recent years, historically it has consistently caused high yield losses in Western Nebraska. A survey was distributed to growers, crop consultants and other agricultural professionals to obtain information about current management practices used for western bean cutworm. Questions covered multiple topics including: demographics, scouting practices, degree day model use, confidence in management knowledge, Bt corn use, insecticide use, and considerations for biological control. There were 95 completed responses received by email. Respondents self-reported significantly higher yield loss due to WBC in 2016 than in 2015 and 2014. Growers demonstrated lower knowledge of WBC identification and management than crop consultants. There were frequent (58.45%) reports of Cry1F Bt corn providing decreased control against WBC. Pyrethroids were the most commonly used class of insecticide (81.04%); among crop consultants, more than half (51.43%) felt that these insecticides were not providing as much control as they used to. This survey identified major concerns for growers and agricultural professionals in Nebraska for western bean cutworm management. An improved understanding of WBC biology and education on management would be most beneficial for growers. Crop consultants would benefit from using more diverse management tactics including: biological control, rotation of insecticide mode-of-action, and diversifying Bt hybrids.