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Use of insect resistant "benning" soybean in IPM programs with multiple pests

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Insect resistant QTLs on soybean linkage groups M, H, G, and E were introgressed within the cultivar 'Benning' and evaluated in various IPM scenarios in field tests during 2011-16. During the period, low, moderate, and high infestations of either soybean looper, velvet bean caterpillar, or kudzu bug occurred in the field tests which had 8 row plots, RCBD, and 5 replications. Results showed a yield advantage of 'Benning' lines possessing one or more of the insect resistant QTLs compared to 'Benning' without the traits. IPM practices of planting date manipulation and use of scouting/threshold insecticide applications enhanced yield with 'Benning' lines possessing insect resistance QTLs.