

## **IMPACTS OF THE WEEVIL *APION ROSTRUM* ON SEED PRODUCTION IN WILD CREAM INDIGO *BAPTISIA LEUCOPHAEA***

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*Abstract* Seeds of many species of *Baptisia* are eaten by larvae of the weevil *Apion rostrum*, impacting plant fitness and compromising prairie restoration activities. We examined the impacts of *A. rostrum* predation on seed output in a commercial seed production population of wild cream indigo *Baptisia leucophaea* in southeastern Minnesota. Predehiscent seed pods (n = 673) were collected from 15 plants in September 2007, measured (total pod length), and examined for intact seeds, damaged seeds, and weevils. Adult weevils were present in 46% of pods examined, averaging 1.48 weevils/predated pod. More than 40% of predated pods contained two or more weevils. Pods contained an average of 9 seeds each, but two-thirds of the seeds were damaged by predation and/or fungus (possibly introduced by ovipositing weevils). Non-predated seed pods averaged 10 X more undamaged seeds than did predated seed pods (5.14 vs. 0.48 seeds/pod). Predated pods averaged 0.25 cm larger than non-predated pods, with pods containing two or more weevils > 0.55 cm larger than non-predated pods. *A. rostrum* has a significant impact on wild cream indigo seed production in this system, preferentially attacking the larger seed pods and damaging either directly or indirectly ~65% of the potential seed crop.