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Abstract

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Identification of effective insecticides to manage *Petrobia latens* outbreaks in winter wheat*

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Petrobia latens (Müller) is a sporadic, but important pest of winter wheat in Oklahoma. Outbreaks are associated with prevalent hot, dry conditions (Jepson *et al.* 1975; Dhooria 2016). Because outbreaks are sporadic, updated data on acaricide efficacy against *P. latens* is sparse, and growers need to know what products are available to effectively control them when outbreaks occur (Depew 1968; Henderson & Tilton 1955; Saxena & Rawat 1969). We conducted two studies in established winter wheat to evaluate selected insecticides (bifenthrin @ 0.02 kg ai/ha, dimethoate @ 0.28 kg ai/ha, gamma cyhalothrin @ 0.015 kg ai/ha, lambda cyhalothrin @ 0.03 kg ai/ha, and zeta-cypermethrin @ 0.028 kg ai/ha) for their effectiveness at controlling *P. latens*. The first study (field 1) was conducted in a wheat field at Feekes growth stage 3.0 (Feekes 1941), and the second in a wheat field (Field 2) at Feekes growth stage 4.0. Mite populations in Field 1 averaged 421 mites per m^2 and 1694 per m^2 in Field 2. Growth stage affected control, with % control ranging from 48% to 64% in Field 1, while % control ranged from 81% to 88% in Field 2.

Keywords*:* wheat, *Petrobia latens*, mite, acaricide efficacy, Feekes

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