**Supplementary material, Tables and Figures:**

Table S1: List of species, plant family, functional group, and relative composition (by seed weight) of the 10-species cover crop mix.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Common name | Species name | Family | Functional group | % Seed weight |
| Forage pea | *Pisum sativum* L. spp. *sativum* | Fabaceae | cool season legume | 19 |
| Cowpea | *Vigna unguiculata* (L.) Walp. | Fabaceae | warm season legume | 19 |
| Lentil | *Lens culinaris* Medik. | Fabaceae | cool season legume | 12 |
| Radish | *Raphanus sativus* L. | Brassicaceae | cool season broadleaf | 6 |
| Turnip | *Brassica campestris* L. | Brassicaceae | cool season broadleaf | 3 |
| Winter canola | *Brassica napus* L. | Brassicaceae | cool season broadleaf | 3 |
| Flax | *Linum usitatissimum* L | Linaceae | cool season broadleaf | 6 |
| Buckwheat | *Fagopyrum esculentum* Moench | Polygonaceaea | warm season broadleaf | 13 |
| Forage sorghum | *Sorghum bicolor* (L.) Moench | Poaceaea | warm season grass | 13 |
| German millet | *Setaria italica* L. | Poaceaea | warm season grass | 6 |

Table S2. Start and end dates and total number of insect sweep samples conducted in each of the three fallow replacement crops in each year of the study.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Crop | Year | Sample start | Sample end | Number of weeks sampled | Harvest date |
| Camelina | 2016 | 14 June | 19 July | 6 | 20 July |
| Carinata | 2016 | 14 June | 12 August | 9 | 12 August |
| Cover crop | 2016 | 14 June | 12 August | 9 | 29 June |
| Camelina | 2018 | 27 June | 19 July | 4 | Hail, 7 July |
| Carinata | 2018 | 27 June | 9 August | 6 | Hail, 7 July |
| Cover crop | 2018 | 27 June | 9 August | 6 | 11 July |



**Fig. S1.** Plot map illustrating design and spacing of study plots at the experimental farm in northeeastern Montana in 2016 and 2018. Plots planted to replacmeent crops, camelina, carinata, or the 10-species cover crop mix (cc mix), outlined in red, were sampled for pest insects in each of the two study years. These plots were planted to durum wheat in alternate years (*i.e.,* 2015, 2017)