

Recovery of Field Corn, Haycrops and Pasture Following Armyworm Damage

Armyworm populations have caused significant damage to many corn and grass fields in the area. Generally, armyworms feed on the leaves of the corn and disregard the stalk and the leaf midrib. However, there are some corn plants that have been completely decimated by the armyworms. Likewise, armyworms usually prefer the leaf blades of perennial grasses but will take out the whole plant if hungry enough.

Field Corn

Many farmers are asking if their corn plants can recover from the defoliation. It is recognized that a corn plant can recover from severe degrees of defoliation; the extent of recovery will depend upon the stage of plant growth at the time of damage and the extent of the damage. Generally crop loss is negligible when defoliation occurs very early in the growth of the plant. The corn crop can recover easily since its growing point remains below ground and there is still potential to produce more leaves. However as the plants mature the level of recovery will be greatly reduced.



Armyworm damage to corn in Franklin County.



Most of the corn fields that have been destroyed by armyworm were between the 7th leaf stage and tasseling. A three year study conducted in Wisconsin and Pennsylvania reported the impact of defoliation on silage yield (Lauer et al., 2004). In this study defoliation did not reduce stand population. Therefore this information would not apply to corn plants completely destroyed by armyworms stalk and all. This study reported the greatest silage yield losses when defoliation occurred at the time of tasseling and silking. An average of 70% yield loss from the 3 sites was reported at the critical early reproductive stages. The study reported that forage yields were only decreased 16% when 100% defoliation occurred at the 7th leaf stage (**Almost all of the corn in Vermont eaten by armyworm was in the 7th to 12th leaf stage**). As the plant becomes more mature yield losses become more significant. Another study in Montana, reported 28% at stage 9th leaf stage, 43% at the 12 leaf stage, 65% at silking and 35% at soft dough (Baldrige, 1976).

Based on these studies we would expect some yield loss from corn eaten by armyworms. However, as long as the stalk and growing point were not damaged the corn will try to recover. We certainly can expect some yield losses but hopefully much of the corn will make a recovery.

Grass Hay and Pasture

Generally, armyworms first feed on the blades of the grass leaves disregarding the sheaths and stems until last. In legume/grass mixtures, the legume can remain standing with all the grass stripped out clean. However, under high larvae populations, even the legume can be consumed.

The question concerning perennial grasses is whether permanent damage has occurred to the stand. From our experiences in 2001, the last time we experienced a serious outbreak of armyworm, the level of damage varied tremendously. For heavily infested fields (“thousands of worms”), the larvae devoured the grass plants all the way down to the crown. Recovery was very slow to almost non-existent. Many of these fields were reseeded. However, most of fields had only damage to that growth and, once harvested, regrowth was normal. Other fields with more severe damage showed slower regrowth, but eventually fully recovered.



An alfalfa/timothy field damaged by armyworm. All remaining was the alfalfa and dandelion.



Regrowth of grasses following armyworm damage.

Pastures can also be affected by armyworm. One farmer noted from 2001 that although all the grasses were eaten, about 50% of his pasture was still made up of clovers, dandelion, plantain and other broadleaf forbs. He had his animals graze the pasture immediately and it did fully recover later in the season.

Before making a quick decision to till the field and reseed, it is important to wait and observe regrowth. Once regrowth commences, a small amount of manure or fertilizer could also help with the recovery. Overseeding with clovers the following spring (frost seeding) could also help increase desirable species.

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