

Diamondback Moth in Alberta Spring 2012

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May 5, 2012

Early spring 2012 came along with an entomological surprise: a very early and significant population of diamondback moth (DBM). It started with reports out of Manitoba in early April. Then we picked several individuals out of the suction trap we maintain here at Brooks, Alberta. The Alberta Lepidopterists Guild also started reporting light trap catches through their list serve. This resulted in us putting out the pheromone traps earlier than normal this spring. Promptly the result has been province wide catches of adult diamondback moths.

One of the striking things about the moths being collected is that most of them seem to be in very good – even pristine condition (I say most because there is very little pristine about some of the moths caught in sticky traps). This gives rise to the question – did they migrate in from the southern states or did they overwinter here on the prairies. This is a perplexing problem. Does the fact that they are in very good shape indicate that they are not migrants but rather residents – it is an assumption but I am not aware of the scientific validity of that assumption. We have no Prairie based research to determine if they are indeed overwintering here. We have our suspicions but no hard scientific evidence. It is also important to note that wind trajectory work has shown a situation that could have moved these moths in from southern USA or northern Mexico.

I pose this question to you though – does it really matter? What matters is that we have a substantial and very early population of DBM. What does this mean? In short an early population of the size indicated by early monitoring means that it is very likely that DBM will go through 3 to 4 generations in the prairies this year and that large, damaging populations are possible by the end of the growing season. As well we know a lot can happen between now and then. The impact of diseases and natural enemies can not be underestimated as they often hold the development of damaging populations back enough that treatment is not needed.

It is worth mentioning that on rare occasions diamondback moth larvae have reached economically damaging levels in seedling canola. This year it will be important to scout seedling canola for this possibility. I think that economic damage could be assessed much the same as flea beetles based on percent leaf damage.

Also in rare situations DBM larvae have resulted in canola fields that will not properly come into flower due to feeding damage. There is no established threshold for this stage of canola.

It is very important to note that this is NOT a prescription for spraying. As we know very well this insect is often controlled by natural enemies that terminate potential outbreaks. **We need to be very careful to only treat diamondback moth larvae when the economic conditions dictate.**

In summary this is an early warning of potential problems. Time will tell how the population develops in 2012. There is no substitute for individual field scouting.

By the way the official common name for *Plutella xylostella* is diamondback moth (according to the Entomological Society of Canada's insect common name website). Not diamondbacked moth or diamond back moth – just in case you were wondering. I will still know what you mean but for those who are picky about such things there you are.