

Grasshopper Update, 2005

These are mainly casual observations made while working on other projects.

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June 3 update:

The current rain has clipped off the hoppers that were hatching, and even before the rain they were a week behind hoppers last May. The first pest species of grasshoppers began to appear in small numbers in southern Alberta around May 18, 2005. Hatching of the eggs and emergence of hoppers began slowly this year, and was further retarded by showers and cool weather up to May 24.

Before the rain, grasshopper hatching was about one week behind the situation last May. In 2004, sentinel sites near Granum and Claresholm, Alberta, showed hatching around May 13. Last year, by May 14, hoppers could be collected from roadsides and pastures in southern Alberta and southern and southwestern Saskatchewan with a sweepnet. This year there was no evidence of any hatching of the pest species by May 20. A site east of Fort Macleod had very small numbers of 1st and 2nd instar two-striped grasshoppers on May 20 (less than 0.1% of the eggs have hatched so far). There was no hatching yet at Lethbridge or near Calgary, until around May 25, 2005. However, hatching can catch up when warm weather arrives. The hatch in 2004 was stopped by the cold, wet weather of June, so the 2005 population will soon catch up and pass the 2004 record.

Hoppers seen on pasture in May should not be confused with pest species. Grasshoppers found in April and May (even in February, in some years) are species that feed on small quantities of range plants only and never reach pest levels, but the early species are good indicators of the situation if you know how to read them. The speckled rangeland grasshopper is normally seen flying by April (red wing, crackling sound) but it is behind in development this year, and also reduced in numbers. In February and March of this year, I found that the velvet-striped grasshopper was one stage behind in development from the usual situation, and low in numbers. Grasshoppers in general had a short season last year, and low reproduction. The eggs of pest grasshoppers are in the soil and still completing their growth. Examination of embryos indicates that they are around 80% of where they would be in a spring following a hot summer (you can see the grasshopper embryo by soaking some eggs in diluted household bleach). Some will hatch and cause damage in June, but it will be later than normal, and patchy, because of the slow start they had.

June 6 update:

Continuing rainfall will slow hopper hatching and give some relief to early season damage that was expected in patches.

For later in June:

warmer weather will allow the hatching to resume, but they will be set back. Grasshoppers in late July will move into roadsides and crops but in most cases the damage will be less visible, because of good plant growth. Significant numbers of grasshoppers will be seen on pastures and rangeland in August, but these are mainly not pests. Ignore any grasshopper that has coloured wings when it flies, or makes noise (song) in the grass, or while flying.