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1. INTRODUCTION

Several arthropods (including insects and other organisms that are closely related taxonomically) attack strawberry and can cause significant losses. The best control strategy begins with a knowledge of the enemies. This chapter will begin with a discussion of the most important pests, namely pests of buds, flowers and fruit. It will then examine pests of foliage and, lastly, pests of roots. Although the information in this chapter is focused on Quebec, it may be applicable to other strawberry producers throughout northeastern North America.

Strawberry production has particular requirements in terms of protection. In the first year following transplanting, fruit production is poor and, as a result, producers take few protection measures. In the second year, fruit production peaks, as do the risks posed by insects. In the third year of production, the yield of strawberries is somewhat lower, but is worth picking under certain conditions, depending on the producer's decision. In terms of protection, the risks are essentially the same as those of the second year. However, weeds can invade the strawberry field in the third year, in which case producers may decide to halt production. Most producers establish new strawberry fields frequently, giving them the option of carrying out rotations; an extremely important cultural control method from an insect and weed perspective. This option is not available to growers of other fruits, such as apples and peaches and small fruits, such as raspberries and blueberries.

2. PESTS OF BUDS, FLOWERS AND FRUIT

2.1. Tarnished Plant Bug, *Lygus lineolaris* P. de B. (Hemiptera: Miridae)

Description. Adult tarnished plant bugs are brown and measure 6 mm in length. The pale green nymphs look like the adults but are smaller and do not have wings. Their more rapid movements distinguish them from aphids, which are slow-moving and not highly mobile. The tarnished plant bug has piercing-sucking mouth parts. It moves about frequently in the strawberry field.

Life cycle. The tarnished plant bug is a pest of several crops, including strawberry, apple, alfalfa and potato. It has several generations per year and moves from one crop to another in search of suitable hosts. The adult overwinters in plant debris, not necessarily in the strawberry fields. The first adults can be seen in the fields in mid-May during the development of the flower