Flowering is an incredibly important period of the crop cycle in macadamia production. Growers are faced with managing both beneficial insects and pest insects. Beneficial insects play a role in pollination and are a major asset for industry stakeholders (beekeepers). Flower pest insects, such as lace bug or flower caterpillar, can cause extreme yield losses (from 50-90% losses). These factors combine to create a challenging situation for macadamia growers to manage. The desired outcome is to limit the damage caused by pest insects while avoiding any losses of beneficial insects. The AMS has worked with the NSW Beekeepers Association to develop some practical guidelines for macadamia growers to utilise during flowering. These are:

- **Use only registered or permitted crop protection compounds during flowering** (maintain a copy of the permit and/or label in your spray records and follow the requirements outlined in the critical use comments section).

- **Do not spray while bees are foraging** (from mid morning to mid afternoon) during flowering. Flower spray applications should occur when bees are not foraging (from late afternoon through the evening) and should be finished before bee flight the following morning.

- **Communicate with your beekeeper and your neighbours.**
  - Know where the bee hives are, and ask your neighbours if they have any hives.
  - If you have hives on your property, notify your beekeeper that you will be spraying and what compound will be used. Based on the product used, the beekeeper may want to move the hives. Beekeepers are generally only able to move one load of hives per night. Give the beekeeper enough notice to be able to move the hives. **At least** two days notice is recommended.
  - When hives need to be moved, bee keepers lose both time and honey. The stress of moving the hives results in approximately 14% loss of production (honey). Therefore, moving the hives away and back again incurs a loss of approximately 28%. Communication with bee keepers is ESSENTIAL and can minimise any losses.

- **Take note of other flowering plants within bee range.**
  - This may indicate if you have foraging bees on your property even if you do not have hives on your property.

- **Be aware of spray drift and the effect it may have on bees and beneficial insects.**

**Acknowledgment:**
Geoff Manning, Secretariat for the NSW Beekeepers Association for his input

**Further Information**
For more information on this topic, please contact the AMS Productivity Development Officer Robbie Commens and/or your pest consultant.

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