CROP POLLINATION INFORMATION

While collecting pollen and nectar bees become very effective pollinators. Apple flowers cannot self pollinate and therefore require cross pollination. This means the Apple tree needs a Pollinator (Bee) and a polarizer (Another Apple or Crab Apple variety) that produces viable and compatible pollen.

Pollination Obstacles

- Not a big enough bee population to service the orchard.
- Bees visit flowers mainly in the morning. Spraying, mowing or weather conditions could interrupt this progress.

Fertilization Threshold

For complete fertilization to occur a minimum of 6 to 7 ovules must be fertilized i.e. 6 to 7 full sized seeds are present in the ovary (Ten seeds would be the ideal number). When less than 7 ovules are fertilized, deformities, smaller size and a reduction in calcium content which leads to storage problems. The biggest problem being the fruit may not remain on the tree until harvest (Crop Drop).

Bee Colony Strength

Colony strength is important. The adult bees should cover 6 to 8 of the 10 frames in the beehive, of these 8 frames, 4 frames must contain all stages of brood development. This will guarantee an adequate future foraging bee population.

Moving Hives into the Orchard

For maximum foraging introduce hives after roughly 5 to 10% of the apple flowers have blossomed. Groups of 4 hives placed at 500ft intervals is an ideal distribution. (1 Hive per acre minimum)

If competitive foraging (e.g. Dandelions) are present increase the number of hives to 2 per acre.

Spraying

It is illegal to spray during the blossoming period. Try to use chemicals with low bee toxicity especially those with short residual times and moderate to low LD50 ratings (See labels) Manage anticipated pest problems long before the bees arrive.

Pollination Contracts

Draw up and agree to a pollination fee per hive, stipulate the period e.g. 10 days. As weather conditions are unpredictable these times should allow for a certain amount of flexibility.

Worth Remembering

Honey bees can set too much fruit and the crop must be thinned. While a heavy crop can be thinned, a light crop cannot be increased after the pollination period has ended. For a better chance of success in the orchard and profitability, bees are definitely going to be an excellent investment.

Contact Information

For further information or assistance, feel free to contact me via e-mail or telephone:

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Kind regards,
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