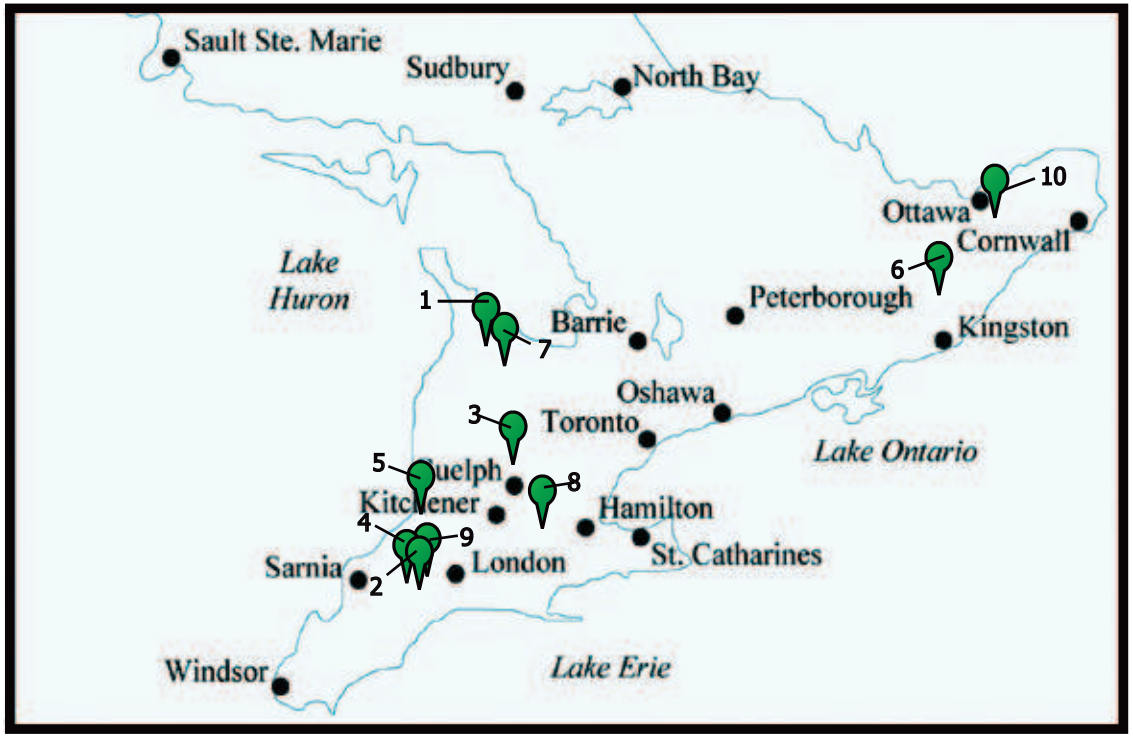

1. Gabriela Berger * Georgian Bay Honey
201248 Hwy 21, Owen Sound, ON, N4K 5N7
519-371-1694 bergers.apiaries@gbtel.ca

2. Steve/Davis Bryans * Munro Honey
3115 River St, Alvinston, ON, N0N 1A0
519-847-5333 info@munrohoney.com

3. Jim Coneybeare * Coneybeare Honey
215 Forfar St E, Fergus, ON, N1M 1B4
519-843-7328 coneybearehoneyj@aol.com

4. Dan Davidson * Davidson Apiaries
8644 Churchill Line, Watford, ON, N0M 2S0
519-849-5959 sddavidson@brktel.on.ca

5. Bill Ferguson * Ferguson Apiaries
39006 Zurich-Hensall Rd, Hensall, ON, N0M 1X0
519-236-4979 ferga@hay.net

6. Phil Laflamme * Highlands Honey
6-Z2 Old Kingston Rd, Portland, ON K0G 1V0
613-272-2091 highlandshoney@storm.ca

7. Kelly Rogers * Chatsworth Honey
RR 4, Chatsworth, ON, N0H 1G0
519-794-3335 kellybeee@rogers.com

8. Alison Van Alten * Tuckamore Bee Co.
300 Carlisle Rd, Carlisle, ON, L0R 1H2
289-260-7434 alison_bee@yahoo.com

9. Danny & Betty Walker * Walker's Honey
9327 Scotchmere Dr, Strathroy, ON, N7G 3H3
519-245-5361 walkerb655@hotmail.com

10. Jurg Zurcher * Zurcher Honey Ltd.
3710 Sixth Street, Ottawa, ON, K1T 1K4
613-523-8518 beesupplies@zurcherhoney.com

ONTARIO MITE & DISEASE RESISTANT HONEY BEE BREEDING PROGRAM

Ontario Beekeepers' Association
Technology Transfer Program

(519) 836-3609
www.ontariobee.com

Members of the Ontario Bee Breeders' Association (OBBA) have been selecting their breeding stock since 1992. Individual breeders assess their stock for economic characteristics. It is then evaluated by the OBA Technology Transfer Program for disease resistance traits.

MITE & DISEASE RESISTANT HONEY BEE STOCK
Selection Criteria

Hygienic Behaviour:

Honey bees that demonstrate hygienic behaviour are more tolerant to varroa mites and brood diseases than non-hygienic bees. The liquid nitrogen freeze kill method is used to freeze capped brood. Colonies ranked in group 1 (>80% of killed brood cells removed) are used as breeders for the next generation.

Tracheal Mite Resistance:

Bees from group 1 hygienic colonies are tagged and introduced into mite source colonies. Tagged bees are retrieved, sorted and dissected to determine tracheal mite prevalence and abundance. Breeders use the top 25% of the resistant lines in their breeding program.

Queen Quality Survey:

Queens and attendants are checked for varroa mites, tracheal mites, nosema and physical damage. The average number of sperm in the spermatheca is also estimated.

Healthy young queens are productive and better able to resist diseases and other stresses.

Colony Health Survey:

Adult worker bees from potential breeder colonies are checked for varroa mites, tracheal mites and nosema before treatment application. Results reflect disease resistance characteristics and management practices of the breeder.

2012 Breeder Profiles

Gabriela Berger~Georgian Bay Honey
New to the breeding program in 2008.

Steve/Davis Bryans~Munro Honey
Mainly Buckfast stock. Tracheal mite testing since 1995. Hygienic testing since 1997. Will ship to the US for orders of 40 or more.

Jim Coneybeare~Coneybeare Honey
Third generation operation with a breeding emphasis on parasite resistance, wintering ability, gentleness, swarming disinclination, honey production and resistance to brood diseases.

Dan Davidson~Davidson Apiaries
Fourth generation beekeeper. Mated queens.

Bill Ferguson~Ferguson Apiaries
Raising queens for over 35 years. Switched to Buckfast with the arrival of the mites. Quiet, gentle, winter hardy and good honey producers, a pleasure to work with. Currently shipping into the US and across Canada.

Phil Laflamme~Highlands Honey
Ontario stock, carefully selected for disease resistance, wintering ability, honey production and gentleness. Mated queens, nucs and cells.

Kelly Rogers~Chatsworth Honey
Focus on hive health, honey production and wintering ability. Successfully keeping bees using only organic acids for mite control for 9 seasons. Active member since 1995; consistent high rankings for hygienic test since 1998. Ontario stock.

Alison Van Alten~Tuckamore Bee Co.
In operation since the mid 90's with an emphasis on integrated pest management and colony health. A budding queen rearing operation with Ontario stock. New to the breeding program in 2009.

Danny & Betty Walker~Walker's Honey
Testing queens in the breeding program since 1993. Nucs, queens or cells available.

Jurg Zurcher - Zurcher Honey Ltd.
Successor of the Russian Breeding Program maintained by Francois Petit. Russian queens and nucs.

According to Fries and Lindstrom (2010), the best tool for breeding disease resistant honey bees is through the slection of hygienic behaviour. Varroa sensitive hygiene (VSH) is a behavioral trait in which bees detect and remove bee pupae that are infested by varroa. However, hygienic behaviour not only leads to increased resistance to **all** brood diseases but also decreases varroa population development.

A 2008 TTP study compared splits that raised their own queens, to queen cell and mated queen introduction. Introduced mated queens had the highest acceptance rate, and by the end of the summer had not superceded. Splits given mated queens also had a more solid brood pattern and fewer varroa per 100 bees in a late summer alcohol wash.