



NSDA Report on the Status of NS Honey Bee Industry

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Provincial Apiculturist
NS Department of Agriculture
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Beekeeper Responsibilities under the Act

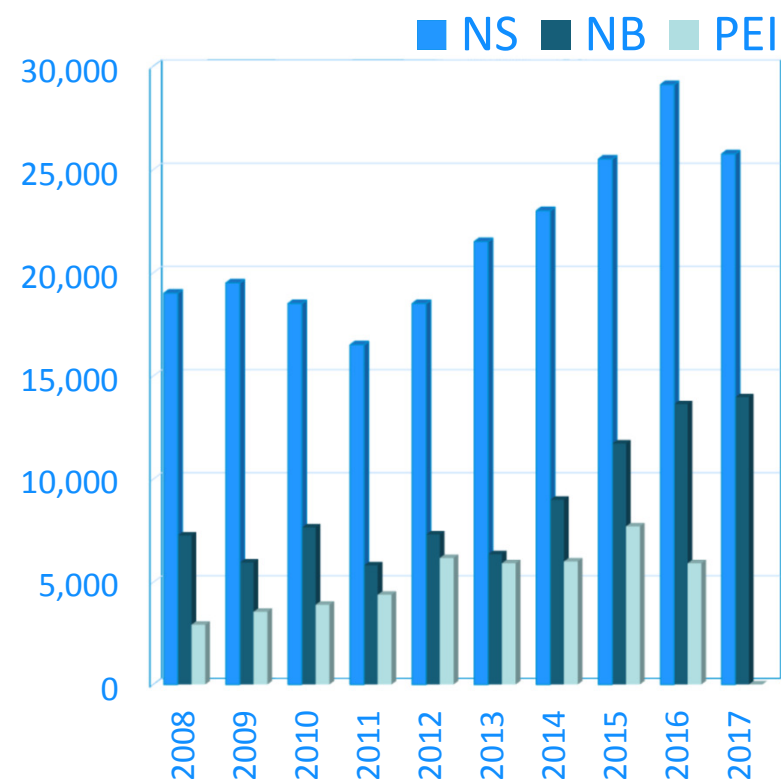
- **Annual Registration** by NOVEMBER 1st
- **BK code** visible in every apiary
- **Permits** are needed to import bees
- Sell to only registered beekeepers
- **Inspections** needed to sell or gift bees & equipment
- No immovable frame hives
- Reportable diseases and pests (AFB, SHB, and others)
- Clean orderly bee yards – no access to infected comb
- Record keeping, particularly sellers
- Comply with orders issued by inspectors
- Provide apiary locations within 24 h when requested





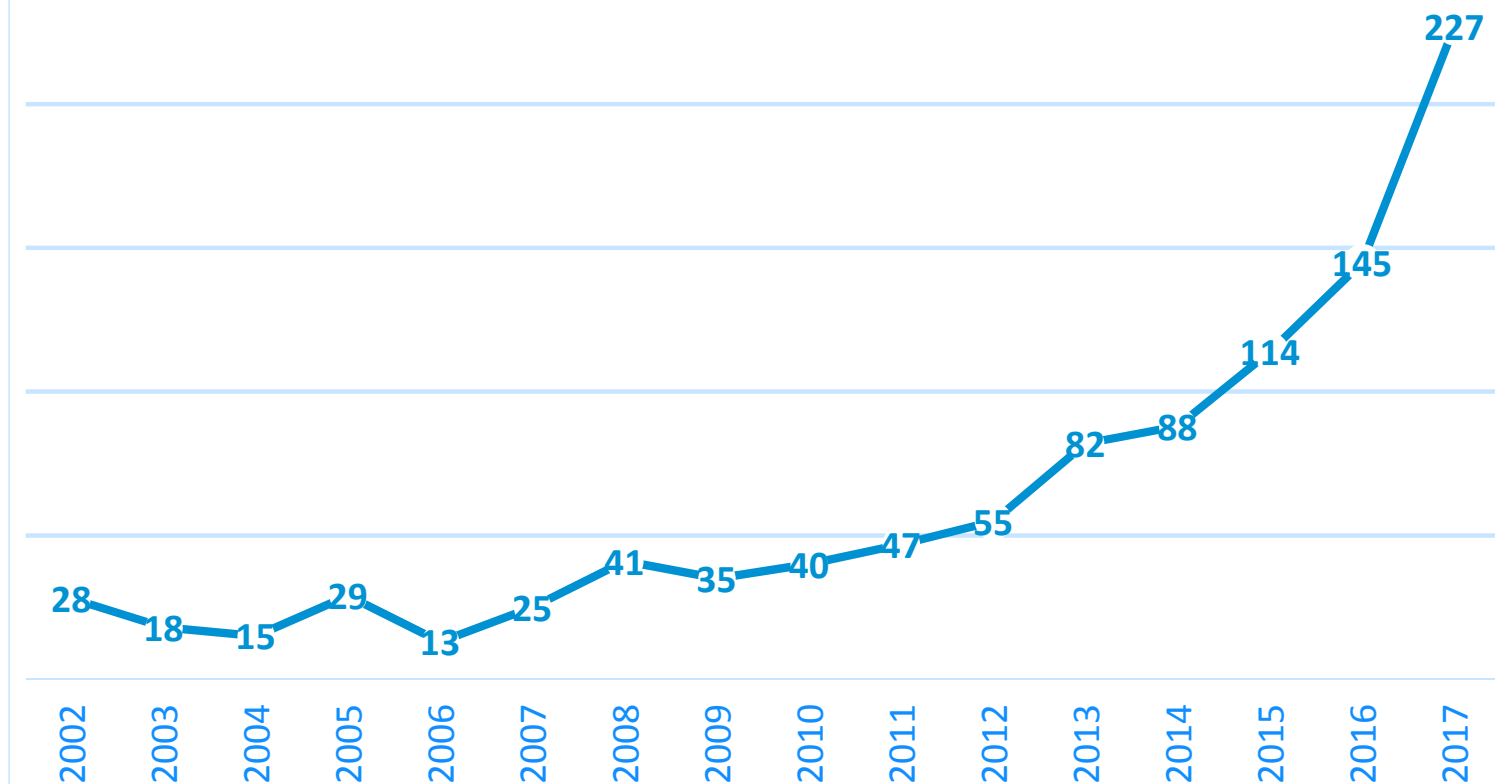
Honey Bee Industry Statistics

Maritime Hive #s

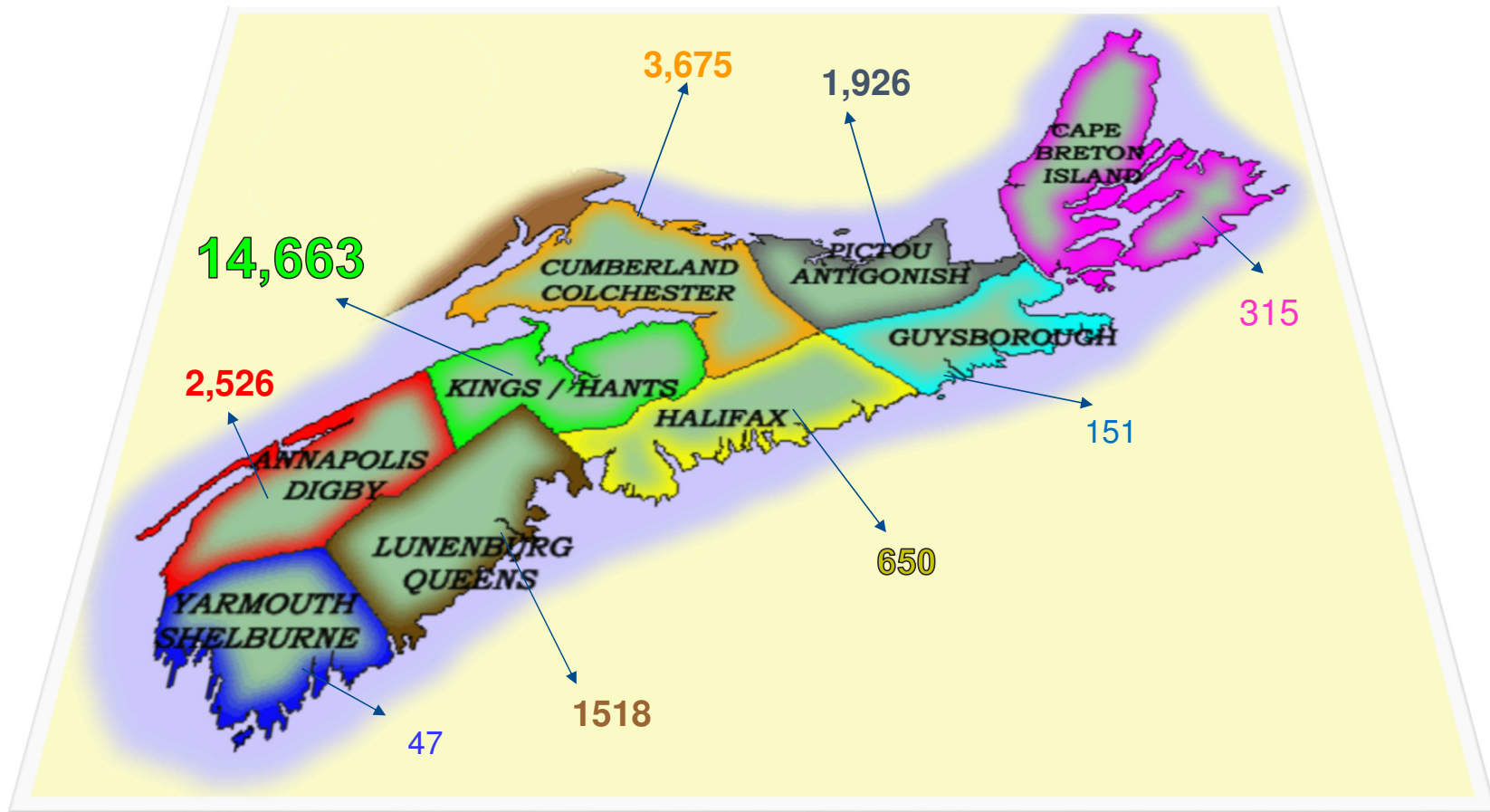


- 600 registered beekeepers in 2017,
 - 227 new beekeepers
 - 41 commercial beekeepers (> 50 hives)
 - 6 beekeepers keeping > 500 hives
- 25,750 hives in summer 2017,
 - 2016/17 winter survival = 86.8%
 - 18,743 hives used for pollination
 - Additional 432 imports for pollination
 - 9,953 hives for honey production
- Pollination Income est. value = \$2.6M
 - avg hive rental price = \$138.16/hive
- Honey Production est.
 - avg: 51.32 lbs/hive = 509,892 lbs total

NEW BEEKEEPERS IN NOVA SCOTIA



Number of Hives by County (2017)



Imports

	NZ packages	Australia Packages	Australia Queens	NZ Queens	Hawaii Queens	California Queens	Chile Queens	Canadian Queens
2017	704	0	0	1408	1470	725	935	356
2016	2816	400	100	3050	2300	665	100	435



Colony Inspections

Prompted by: Sale, Export, Import, Complaint, or haphazard.

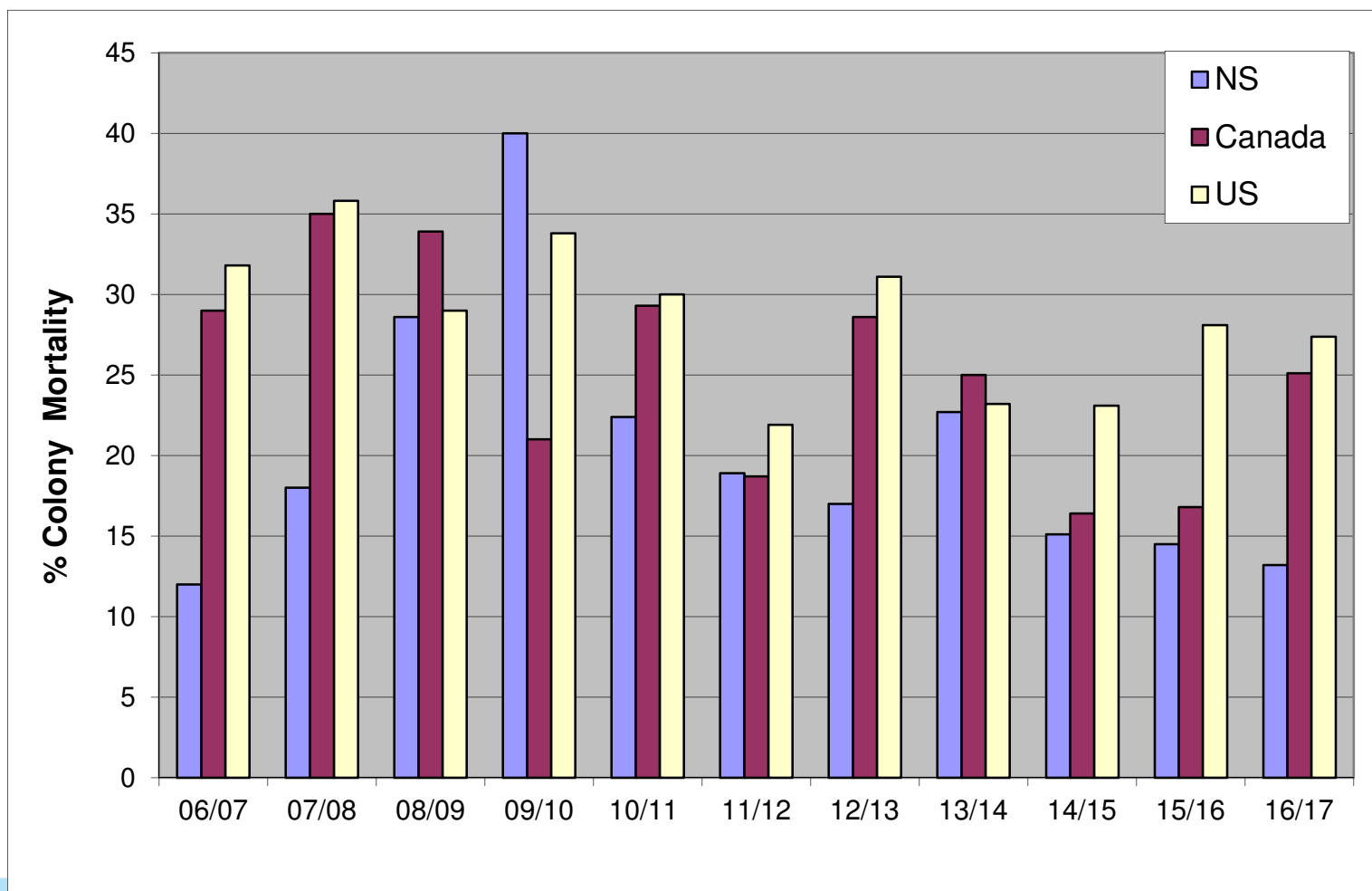
Anyone selling or transferring ownership of bees in NS is required to arrange for inspection with the Provincial Apiculturist.



	Beekeepers Inspected	Yards	Colonies in yards	Colonies inspected	Chalkbrood	Sacbrood	DFW	EFB
Totals	36	44	1184	377 (32%)	42 (11%)	9 (2.5%)	4 (1%)	4 (1%)

- 1 waxmoth observed in hive.
- 1 operation to submit + AFB samples; lab confirms oxytet effective.
- No prohibitions for sale; some restrictions where diseases were identified.
- 650 hives also inspected in NB; 432 permitted for import.

Winter Mortality 2007-2017



Import Protocol Amendments for 2018

- Import of used hiveware (supers, brood chambers, frames, feeders, covers, bottoms, etc.) is prohibited.
- Import of honey bee colonies (hives, nucs, package bees) from other provinces is prohibited.
- Exceptions will not be granted to maintain trade with PEI.
- Canadian Queens to be sourced from approved breeding programs only.
- Reduction in the number of queens sourced from other countries.





- Contact Jason Sproule, Provincial Apiculturist to request an import permit.
- Arrival times for queens must be communicated 48 h in advance.
- Attendant worker bees in queen cages from California, or Canadian Provinces must be destroyed.
- Imports are subject to the Import Protocol and any specific conditions described in the permit.

Changes to Oversight of Antimicrobials

Health Canada is requiring greater Veterinary oversight for the use of medically-important antimicrobials in an effort to mitigate resistance development.

Effective Dec 1st, 2018 a Veterinary Prescription will be needed to use Medically Important Antibiotics in Animals

- Includes: Oxyteracycline, tylosin, lincomycin for AFB treatment
- Does not include Fumagilin

Remaining Challenges

- Veterinarian education & buy in
- Defining the Veterinary Client Patient Relationship (VCPR)
- Dispensing – requirement of an Drug Establishment License



<http://dowgardens.wix.com/dg2/apps/blog/bee-hive-evaluation-and-maintenance-spring-2011>

Open Syrup Feeding

- In November 2015, the NSBA requested changes to the Bee Industry Regulations to disallow open feeding between May 15 to September 15.
- Reasons cited were contamination of honey with sugar syrup and/or antibiotics.
- The request was reviewed in 2016 and it was determined that there was not enough information to support a regulation change.
- This information was communicated to the NSBA in Spring of 2017.
- Basis for rejection:
 - The Act does not allow for this change to the Regulations.
 - No evidence was available at to support the contamination claim.
 - No science-based evidence is available concerning disease transmission or honey adulteration.
 - Extremely limited history of regulatory success in other Provinces. Most Acts do not address this.
 - Is a valuable practice to industry in certain situations.
 - Could result in a substantial burden of producers to verify honey quality.

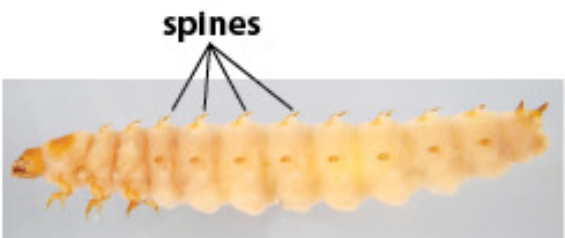
The small hive beetle larvae may resemble greater wax moth larvae (*Galleria mellonella*).

Greater wax moth larva: no spines, has prolegs



prolegs

Small hive beetle larva: spines, no prolegs



spines

<https://catalog.extension.oregonstate.edu/em9150/html>

Small Hive Beetle (*Aethina tumida*)

Larvae

White to cream colour

Has spines in rows along back

Only 3 legs (no prolegs)

Soft body, hardened head capsule

Up to 1 cm in length

Adults

Reddish brown to black colour

Shortened wing covers expose tip of abdomen

5-7mm long (1/3 size of honey bee), 3mm wide

Retractable antennae clubs

Fine hair over entire body



3.0 mm

James D. Ellis, University of Florida
Bugwood.org/CC-BY-3.0-US

Guiding principles for responding to the discovery of Small Hive Beetle in Nova Scotia

1. Surveillance

Goal: Early discovery of SHB incursions into NS offers best results for mitigation of impacts.

- ID at risk operations
- Trap Deployment
- Routine Inspection
- Self Reporting

2. Identification & Communication

Expedient confirmation of infestation.

- Sample submission to diagnostic labs
- Identify extent of infestation
- Investigate possible origins
- Notify regulatory bodies & stakeholders
- Determine others at risk

3. Quarantine & Detainment

To minimize further spread of infestation.

- Detainment of + yards
- Quarantine of larger regions
- Release is possible

4. Eradication & Management

To prevent establishing a reproducing population.

- Depopulation of infested hives
- promotion of BMPS
- Disinfection of equipment
- Implementing BMPs

Thank you!