# BEEKEEPING: YOUR FIRST YEAR AND BEYOND

An approved course for those applying for a City of Edmonton beekeeping permit.

#### Company: Hiveworld.ca

Edmonton-based Hiveworld.ca was founded on a commitment to preserve the honeybee and is known as a trusted supplier of expert information, certified bees and quality merchandise since 2006. The company's mission is to help beekeepers learn, do and succeed with the knowledge and product guarantees required for pleasure and success in this increasingly-popular form of animal husbandry/food production. A key focus has been on successful overwintering and strong disease management. Hiveworld.ca now manages hundreds of hives and nucs of its own in the Edmonton area, and serves all of Western Canada with a full range of merchandise as well as inspected live bees for spring delivery.

#### **Chief Instructor: Barry Haughton**

Barry Haughton is a long-time entrepreneur and problem-solver who began beekeeping as a sideline in 2001. His interest was driven by a desire to help preserve the bees and offer his learning and assistance to those who share his passion. A key focus has been on successful overwintering and strong, integrated disease and pest management. His company now manages hundreds of hives and nucs of its own, and serves all of Canada with a full range of online merchandise as well as inspected live bees.







# **1** Introduction:

- · The company and the instructor
- The importance of education and ongoing advice and support for success
- · Student introductions, background and motivations
- The growing local and global interest in practical beekeeping

#### 2 What are the rules?

- · Background Alberta Animal Health Act
- Provincial registration
- · Provincial premises ID number
- · Where are the hives in Edmonton
- Bylaw requirement for a licence
- City of Edmonton licence application
- · Edmonton's beekeeping guidelines
- · City requires certificate of completion of this course
- · City requires you to name a mentor if you are a first-timer
- · Importance of membership in a local bee club
- · Insurance through your bee club
- In Edmonton, call 311 to inform the City of the swarm or contact the Alberta Beekeeper's Association to send a beekeeper to remove the swarm at no cost.
- · City mandates that NO ITEMS from a hive within Edmonton may be sold
- Siting the hive(s) on your yard: fences, water, other considerations
- Keys being a good neighbour and knowing what you are getting into.

# The Bees:

- · Species of bees
- · Honey bee anatomy
- Types of European honey bee and their roles
- Queens
- Workers
- Drones
- · Winter bees

# 4 Equipment for your first year - pros and cons:

- Langstroth
- Top Bar
- Flow Hive
- Nuc box



# 5 Protective equipment - safety and sanitation:

- · Bee suits with gloves
- Smoker
- Hive tool
- Bee brush
- Entrance reducers
- Honey extraction equipment

# 6 Preparation and management:

- · Education and research
- · Decide where your hive(s) will be situated, and what are the best chances of success
- · Order supplies
- · Ordering of bees: Nucs vs packages
- Assembling equipment

### Spring preparation and management:

- · How to gauge the onset of spring
- · Hive location
- · Getting the hive(s) set up and level
- · Bee arrival
- · Installing packages
- Installing nucs
- · Entrances and reducers
- · Dealing with sudden cold spells
- · Spring feeding when, why and how
- · Spring health management when, why and how
- IPM Integrated Pest Management
- · First and subsequent hive checks when and how

# 8 Hive Checks - practical guide:

- · Approaching the hive
- Preparing (PPE, clothing colors, scents)
- Is there a good/better/best method/time way?
- · Recommended demeanour
- Applying smoke: How much and what does it do for you and the bees
- · Slow and smooth comforts the bees
- · Inspecting brood nest, eggs, presence of queen, other indicators of healthy development
- · Determining need for hive expansion



# 9 Diagnosing potential conditions in your hive:

- Reasons for a queenless colony
- Lifespan of a queen.
- Spotty brood pattern
- Presence of queen cups and cells swarm, supercedure, or emergency situation
- Presence of mites
- Bee disease
- Multiple eggs in each cell
- Number of bees
- Deformities
- Weak hive how to amalgamate
- Importance and timing of regular checks

#### (I) Keeping thorough records:

- · How often should I do a hive check?
- · Why should I keep good records?
- · Hive observations and solutions
- · Prescriptions, treatments
- Marking contaminated/medicated boxes

#### Requeening:

- How to requeen
- Importance of acclimatized genetics

# 12 Swarming:

- Swarm season
- · Can my first year bees swarm?
- · Reasons for swarm
- Prevention strategies (can also be part of your IPM strategy)
- In Edmonton, call 311 to inform the City of the swarm or contact the Alberta Beekeeper's Association to send a beekeeper to remove the swarm at no cost.

# **3** Summer management:

- · How to gauge the onset of summer
- · The queen's mating flight
- · The start of honey flow, development through the year
- · Feeding decisions
- · Honey supers to catch the flow timing
- · How to super a Langstroth hive
- Top bar hive expansion

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- · How much honey can be taken from the hive?
- · Mediums or deeps? What do they weigh?
- Flow Hive
- · Checking the capped honey
- Moisture content

# **14** Extracting Honey:

- · Removing honey frames/supers
- Langstroth
  - Uncapping
  - Extracting
  - Straining
  - · Option of honey comb
- Topbar
- · Crushed comb
- Auto Extract
- Bottling/labeling requirements
- · Selling raw/natural honey
- · Raw natural versus Organic honey
- · Cleaning/storing frames and equipment

# 15 Fall/Winter management:

- · How to gauge the onset of Fall
- · Hive checks: When and at what temp to stop
- · Expulsion of the drones
- · Contraction and backfilling of brood nest with honey
- Winter bees
- · Tightening of the cluster
- Size of cluster
- Health and treatments
- Feeding
- · Wrapping the hives when cold arrives
- · Essential keeping hive dry and ventilated
- · What to expect expect next year



#### 16 Honey bee pests and diseases:

- Implication of Health Canada prescription regulations as of December 1, 2018
- · Provincial recommendations for management of honeybee pests in Alberta
- · What to look for
- · Avoiding used equipment and old comb
- · Drift, old equipment
- Old queens
- Mites
- · Varroa, Varroasis
- · Tracheal mites
- Brood Diseases
  - AFB
  - EFB
  - Chalk Brood
- Nosema
- · Small hive beetle
- · Wasps and mice
- · Pesticide poisoning
- Importation rules and inspections; Alberta provincial inspections
- Organic treatments
- Commercial treatments
- IPM

# **17** IMPORTANT NOTE:

The City of Edmonton expects you to follow up this course with hands-on experience at a working beeyard. Hivewold.ca's weekly Meet The Beekeeper evenings near Sherwood Park are an easy, no-cost way for you to meet this expectation.

# 18 Further resources, online and printed:

· Handout provided

