

Ceracell For the Love of Bees

Free Natural Bee School at Victoria Park

Full 2018 - 2019 curriculum

Walter Dendl and Ella Rose-Shnapp will lead our bee school this year and we will have visiting beekeepers join us over the course of the year. Bee School is sponsored by Ceracell Beekeeping Supplies and enabled by BeezThingz Ltd.

A word from teacher Walter Dendl

I envision each workshop to be between 2, (sometimes 3 hours). Half of the time may be spent in the classroom to discuss theory and what we will look for at the school hives. Opening the schools hives will give students a chance of working with bees first hand. When opening the hives the tutors role is to guide students, who will become more confident in working with bees.

April Workshop: Wintering down a bee hive

How are bees preparing for winter (honey has been taken wets have been cleaned)

What are the tasks of a beekeeper before winter?

Winter bees, Drones, Propolis, brood pattern

Checking for bee health, food storage
Different bee diseases: an overview,
Varroa and AFB, (Bring Assure Quality Pamphlet).

How we check and what treatment are we using and when, (MPI Paper on treatments)

Would it be better not to treat, (along paper of Darwinian Beekeeping, Thomas Seeley, (Discussion)

Hive requirements for bees in winter, brood nest, food, temperature, space, climate), entrance reducers, insulating the lid

Prepare hive surroundings

Practical task for the month:

Environmental check for bee food (look at the environment through the eyes of a bee), Start a logbook and keep it during the year

Students with own hive are to prepare their hive surrounding for winter.



May Workshop: Beehive, hive equipment and their maintenance

Discuss observations students made re environmental check
Last workshop Q&A

How best to store of empty hive boxes, and frames throughout winter, (wax moths, ants, cockroaches, slugs)
What equipment do beekeepers use, show and explain, Personal Protective gear

Hygiene around bees and in the apiary
Different hive constructions, their advantages and disadvantages, (a bit of history)

What can we see by observing a beehive from the outside? ('At the hive Entrance', H. Storch, give web link). Caution, the paper is written for a different climate

Why are we looking into a beehive - Health of bees, brood pattern, queen presence, (Monitoring equipment, BeezThingz)

Practical observation at Victoria Park beehives, (students to take notes in logbook)

Practical task for the month:

Prepare a list of flowering plants to keep bees and other pollinators fed during the seasons, if you can find nectar and pollen values for your plants write them down.

June Workshop: How a Bee Colony works

Compare the list of flowering plants,
Last workshop Q&A

Evolution of the bees, there is more than honeybees?
Honey bees and native bees in NZ,
Bees and the environment, (country and city), challenges: beekeepers, pests, monoculture, and pesticides
The different casts in a beehive
The bee colony as a super organism,
Who is making the decisions in a hive, and how does communication happen? (Pheromones, dances, food exchange, vibration)
Honey bee reproduction, brood rearing, bee and colony losses, what is natural?
Apis Mellifera, the most studied insect in the world

Practical task for the month:
Observe and listen to a beehive for 15 min once a week, at different times of the day, write your findings into your logbook

July Workshop How to become a beekeeper

Observations from the logbooks, discussion
Last workshop Q&A

Setting up an Apiary what to look out for
What are the different types of bee-hives? (Refer to May workshop)
Hive architecture in nature
How to acquire a bee colony, buy, split, swarm
Winter the time for equipment cleaning and maintenance
Check your beehive for food requirements, disease, pests,
What will you need for your hive in the next few months, equipment?
Legal requirements, apiary registration, annual disease return, AFB check (DECA Cert)
Why are honeybees so important to us?
The economic value of the honeybee in NZ ('Manuka' honey a special case)

Practical task for the month:
Bring a plan where and how you want to set up an apiary (in your garden or any other place of your choosing) and present to class.

August Workshop Preparing your Beehive for the beginning of spring

Last workshop Q&A
Student present to class their apiary set-up, discussing their log entries

How do bees orientate in the environment?
Check the hive for diseases, brood pattern and food storage
Find the queen in the hive and make sure she is ok, what could happen to her?
Cleaning the hive, check for wax moths
Observe, work, and learn with your bees,
Observe what is happening in the environment, flowering plant, and weather pattern
Find a bee buddy to discuss your problems with and can help with your hive

Practical task for the month:
For those who have a hive, take photos of the interior and the frames of your own hive.
For those who don't have a hive, take photos of the Vic Park hive interior
Write findings into your logbook



September Workshop Start of the honey season

Last workshop Q&A

Discuss findings (logbook entries, share photos of the hive interior.

Check your hive for diseases

Is there enough food for bees and brood, enough brood?

The different behavior of different strains of honeybees

The importance of localized bee populations versus introduced hives, climatic differences

A moratorium of bee products to NZ

What strains of honeybees do we have in New Zealand?

Feral bees in New Zealand, have they succumb to Varroa?

What is happening to our native bees?

Practical task for the month:

Plant bee friendly plants in you own backyard or a bit of guerilla gardening in the neighborhood and public parks (seed bombs)

Check your own hive for swarm cells

October Workshop Summer Preparation, the beginning of the honey flow

Last workshop Q&A

Be aware of the environment in your area, look for bee food

Keep checking the weather pattern, (hot, cold, wet?) and how it will affect a bee colony

Any measures you take to keep your bee colony healthy,

Hive check: look for queen cells, brood pattern, and space

Swarming and supersedure cells

Splitting a beehive, artificial swarming, different methods

Queen rearing

Catching a swarm

Practical task for the month:

Check your own hive for swarm cells
Set up a swarm box in your backyard, Neighbourhood

November Workshop Bee diseases

Last workshop Q&A

The different threats to the honeybee international and local

Varroa, PMS, AFB, and other common diseases

How to check for them

Keeping an eye on the Hive during the year,

How to monitor the hive from the outside, traffic of bees, food they bring in, smell, sound, dead or crippled bees outside the hive

Monitoring board, shake methods, sugar and others

Practical task for the month:

Check your own hive for swarm cells
Write your hive observations into you logbook

December Workshop Bee Anatomy some Harvesting of Comb honey

Last workshop Q&A,
share logbook entries

Short intro of the evolution of the honeybee

Explaining the different body parts of a bee and their function

External and internal parts

Glands and pheromones, communication in the hive

Specialized functions in Drones and queens, a bit of genetics

Nutrition and development

Checking the hive incoming honey and brood pattern

Practical task for the month:

Find supplements for honeybee to feed through winter

NO JANUARY WORKSHOP



February Workshop

The Honey Harvest

Last workshop Q&A
Student's findings

Different ways to harvest honey from your hive
Show the use of a bucket extractor in class
Putting back the extracted frames (wets) for bees to clean
Storage of bee equipment over winter
Danger of robbing
The practice of re-queening, or not at all (Discussion)

Practical task for the month:
Find recipes for bee products on the Internet and share what you find in class next month

March Workshop

Bee Products their harvest and uses

Last workshop Q&A
Sharing of recipe's

What are the bee products and how are they harvested?
The problem with wax and chemicals in the hive
How to collect (waste) products as a hobby beekeeper and what is their use (exchange of recipes)
Filtering and working with wax (practical), candle making
Honey wine and tasting



Literature we'll be working with:

Articles to be handed out to students for different subjects
Books:

The Buzz about Bees
(Jürgen Tautz)

Bee Time (Mark Winston)

The Biology of the honey Bee
(Mark Winston)

Practical Beekeeping in NZ
(A Matheson & Murray Reid)

Honeybee Democracy
(Thomas D. Seeley)

History of Bees (Maja Lunde)

Honey Trail, in pursuit of liquid gold (Grace Pundyk)

Video: 'More than Honey' An in-depth look at beekeeping in California, Switzerland, China and Australia.



Photos by Frances O'Connor