

North Fork Promise Land Apiaries

Over Wintering Bees

By Master Beekeeper

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Me
At a bee yard.

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apiaries.
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Professional
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Keeping bees for
49 years.

1982 Cornell
University
Graduate of
Entomology



Installing
Packages
In April
2018
Snow
Ice and
Freezing
Temps.



Three Keys to Overwintering your bees

1. Site selection - the placement of your hive in the proper spot may be the difference between survival and loss of the bees.
2. Hive health management - a)Varroa control monitor & treatment. b)Queen vigor. c) Winter stores of pollen and honey
3. Configuring your bee hive for the winter months. Requires you to understand how a colony of bees moves & feed through the winter months.

Overwintering your bees

Take your winter losses in the early fall!

Fall is the time to unite or fold any colonies that do not have:

1. Young viable queen to go into winter
2. Do not have an adequate population of Adult bees approx. 4lbs or more.
3. Do not have adequate pollen & honey stores of 70-90lbs.

Site Selection for your Bee Hive

Choosing a location for your Bees

1.Wind Protection

2.Sun Exposure

Wind Exposure

Protect Bees from North & Westerly
Winds

Hedge or Fence Line 4'min height

Fence
Used as
A wind
barrier
Summer



Fence
Used as
A wind
barrier
Winter

Picture
Taken
02/28/20





Natural hedge and
wind block.
Excellent sun
exposure.

Sun Exposure

Winter Sunlight is important

It is a matter of Degrees

Air Circulation is important to
remove moisture without undue
draft stress on the hive.

Great
Location.

Hedges
Three sides
For Wind

Full Sun

Weed cloth



8 Hands
Farm Bee
Yard
Full Winter
Sun
Wind Screen
Blocks wind.

Note blocks on
top to prevent
lids from
blowing off.



Overwintering your Bees

Managing Varroa mite load on your bees is critical to success

The most critical time to treat is late-July - mid-August depending on your area. This is because the mite population is spiking while your bee population is declining.

Important to remember the bees are transitioning to “winter” bees. A heavy mite load can vector a wide variety of viruses that will be lethal to your bees.

Varroa mite Population versus Honey Bee

Credit: Randy
Oliver of Scientific
Beekeeping

Please download
HBHC Varroa
Manual

New Recs:
Varroa loads
between 2-3/100

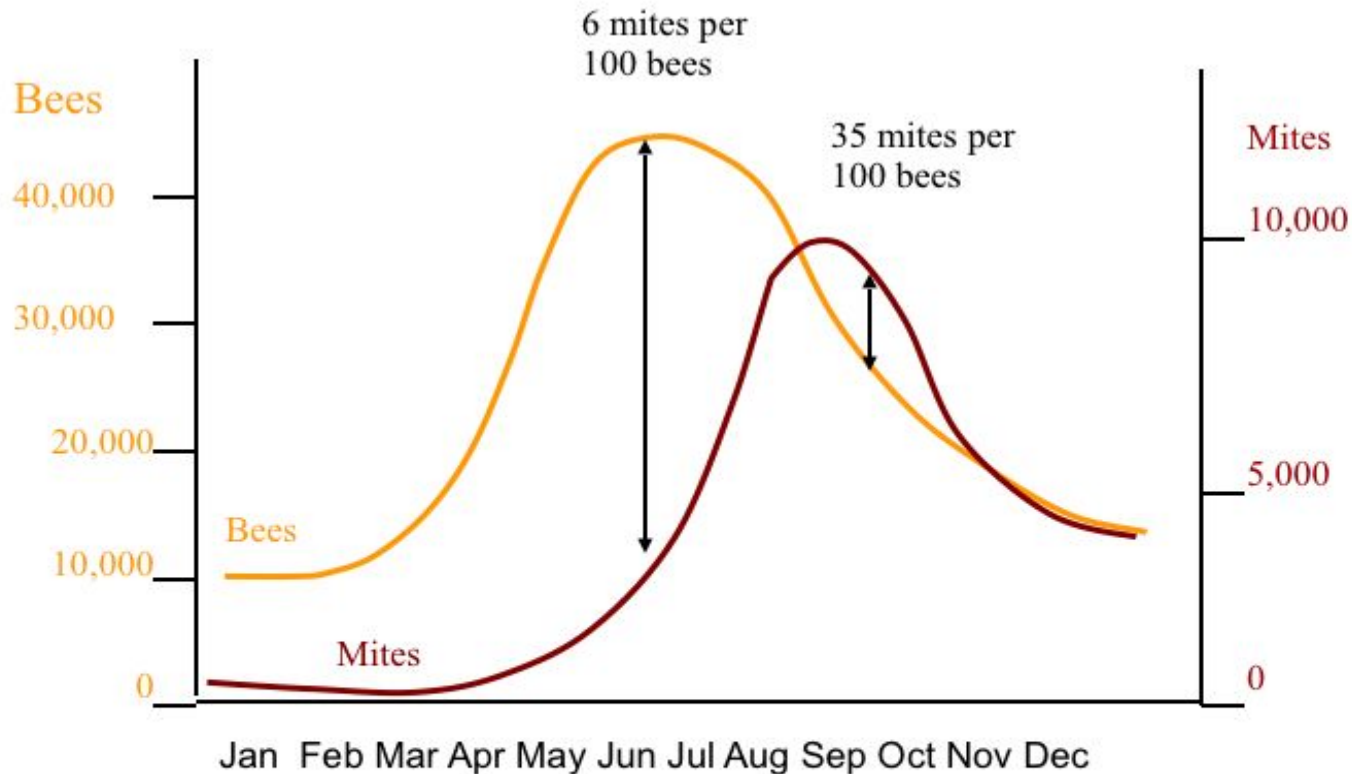


Figure 1. Simplified bee and mite population growth curves for a temperate climate. The mite growth curve lags behind the bee curve. Note how the number of mites per hundred bees greatly increases in fall. A colony is unlikely to survive a fall infestation rate this high.

Overwintering your Bees

Managing Varroa mite load on your bees is critical to success

Even if you do not monitor for Varroa you must treat for them!!!

Photos
Off of
Google
Images



Overwintering Bees

Preparation of your bees for winter starts in August

Some keys to success:

1. Varroa mite loads must be under control. Really important as the bees transition from the “summer bees to winter bees”
2. Fresh queen. If you have a question about your nives queen health, re-queening can still be done now without an adverse effect on hive survival. The new queen will have time for some brood cycles for you to evaluate.
3. Positioning the hive cluster for winter. The use of a queen excluder. Restricts the vertical movement of the queen. The goal is to start the winter cluster in the lowest brood chamber with a bulk of the food stores above the cluster.
4. August/September the beekeeper can move & manipulate frames to organize the brood chamber & food stores

Overwintering Bees

Cold does not kill bees **moisture** does!!!!

1. Make sure hive base is level or with a slight forward pitch.
2. Upper entrance!! Allows moisture to escape and is an alternative entrance for the bees to go on cleansing flights.
3. Remember cluster movement. Bees always travel upwards. Lateral movement is possible but difficult.
4. A cheap moisture wick and supplemental feed is dry sugar on the inner cover.

Overwintering Bees

Cold does not kill bees moisture does!!!!

How excessive moisture gets expressed on the comb of a hive, note the mold.



Photo credit: Google search

Overwintering Bees

Moisture kills!
Mold on frame
Queen in the
center.



Overwintering Bees

Moisture
causes
Stress!!

Hive on left has
no upper
Entrance.
Nosema stress



Upper
Entrance
A great
escape for
the bees
&
Moisture
Relief.
Note Hive
on left
may be
struggling
with
Nosema



Wrapped
and a
wind
break.

Shim used
on back
inside
inner
cover for
upper
entrance
and
moisture
relief.



Over Wintering Your Bees

Supplemental Feeding

It is always best to have the bees with a full deep of honey and pollen in the second deep above the cluster to begin winter.

Fall feeding of a 2:1 simple syrup is probably your most effective time to boost your hives stores.

Once the first frost hits or bees start their winter cluster a change over to fondant feeds are better.

The use of dry sugar placed on the inner cover is both an effective moisture wick and emergency feed for your bees

Supplemental Feed Dry Sugar



Supplemental Feed Winter patties



Supplemental
Feed
Winter patties
& Bee Pro
Late winter/early
Spring I add the
Protein patty.



Liquid Feeding is
Only useful in warmer
Temperature ranges
Effective: Spring-Fall

Photo credit:
Mann Lake Bee
Supplies



Configuring Your Hive for Winter

1. Reduce hive size - over winter in two - three deeps or equal
2. Have sufficient honey & pollen stores in place
3. Provide upper entrance ventilation
4. Reduce lower entrance and provide mouse guard
5. Place weight on lid & or strap hive

A Double Deep Hive
Second deep weighed 76lbs
September 1, 2018

Ideal total weight of bees,
Honey & equipment 160lbs



Hive wrapped
and ready for
winter.

Treated with
Oxalic Acid vapor
For late fall early
winter Varroa



Over Wintering Your bees - Mouse Guards



The Reward of Good Over Wintering of Your Bees



The Rewards of Good
Overwintering Your Bees
Free Increases!!

You know the Stock!
Take your Victory lap!

Questions??



