

What does it take to overwinter honeybees?

From Wikipedia - Overwintering is the process by which some organisms pass through or wait out the winter season or pass through that period of the year when "winter" conditions (cold or sub-zero temperatures, ice, snow, limited food supplies) make normal activity or even survival difficult or near impossible.

When does winter occur in our area?

2023 Winter solstice was Thursday, December 21<sup>st</sup>

2024 Spring Equinox will be Tuesday, March 19<sup>th</sup>

Honeybees don't follow this calendar.

Have a plan:

Winter planning begins in late February when spring colony management starts and should focus on colony health the entire season. A healthy colony is one in which the queen is productive, mites and other disease conditions are controlled, and comb is replaced on a routine basis. Space for brood, bee bread, honey and bees is plentiful. Availability of sugar syrup and protein supplement as needed for periods of bee activity but no bloom such as before the last spring frost date and after the first fall frost.

Nearest Climate Station	Altitude	Last Spring Frost	First Fall Frost	Growing Season
WINCHESTER, VA	721'	Apr 17	Oct 23	188 days

## Colony Health

All colonies need a healthy productive queen so that August and September worker bees are abundant. This requires low mite counts for the last two or three brood cycles before brood production stops in October. The current suggested mite count is 2% or less. This is 2 mites per 100 bees. A standard 300 bee mite check should yield 6 or fewer mites in July. Higher counts require intervention.

## Hive configuration

A suggested winter configuration is four supers on full size colonies and three supers for winter nucs. All colonies use screen bottom boards. The bottom super is usually empty but provides some space for bee movement and helps control air flow. The second super is normally where the lower part of the cluster can expand and contract with outside temperature. The third super is mostly capped honey and bee bread. The fourth super is normally all capped honey and a two-frame internal feeder.

## Food supply

In late winter (January and February) one can hear "It's too cold to open the hive" or "I think my bees are out of food, but I can't add more because it won't stop raining." A colony that is out of food will starve so opening it to add syrup could prevent starvation. Sugar is cheap when compared to purchasing replacement bees. Overwintering colonies with an internal feeder helps keep extra food next to the cluster. There are several days in December, January and February that a quick feeder filling is possible. External protein feeding is desirable.

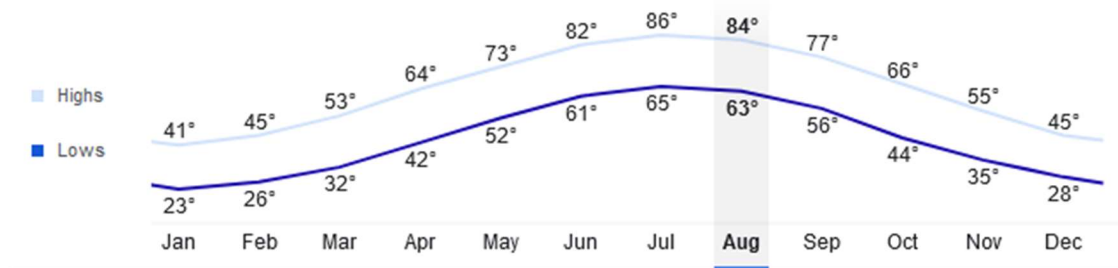
# Winchester, VA



## Weather averages

Overview **Graphs**

### Temperatures (°F)



### Internal moisture

Ventilation is very important! Cold outside temperature does not kill bees because a healthy cluster can survive days of very cold weather. Condensation dripping from the inner cover due to poor ventilation will damage the cluster. Proper air flow allows the excess moisture to exit the colony.

To summarize all of this:

There is no fixed overwintering process that can be universally implemented. My beekeeping goal is always to do what I can to have the minimum winter colony loss with a personal goal of beating the Virginia average loss of approximately 30%. This would be one colony lost from three colonies in September. The remaining colonies can be used to replace winter loss. Spring nuc production is a favorite beekeeping activity.

Questions?