

STAHLMAN BEEKEEPING

NOTES

**2024 Vol 6
issue # 02**

Published by Dana Stahlman Raleigh, North Carolina Email: stahlmanapiaries@aol.com
Published free as a public service to anyone interested in honeybees. Email me to be added to my mailing list. Published 1-13-24

Winter Beekeeping January 2024



2024 May be one of the coldest on record since 1982. It is obvious that weather events are now weekly events. Waves of strong wind, rain, and snow have been seen this year. February has always been the coldest month for me.

I remember a trip to Dawson City, Yukon Territory. I was invited to speak on the local radio station. It was a call in type program. I had questions – and they had answers.

-50° F weather has never been on my radar. Snow is an insulator against bitter cold. One individual mentioned something about moving bees into a mine shaft where temperatures are constant and cold – but not like outside. Honeybees do survive in conditions that include harsh temperatures with protection.

Those beekeepers in the mid-west are in for some really harsh weather conditions. In fact, our local news indicates all states on mainland U.S. including Alaska will be facing extreme cold. Commercial beekeeper try to over-come harsh weather by moving bees south or by placing hives in special buildings or potato cellars.

Arctic air is bringing what is called “Life-Threatening Cold” down into the U.S. this next week. Some of you receiving these notes may wonder what you can do to help bees. I would like to share a few of the things I have experienced.

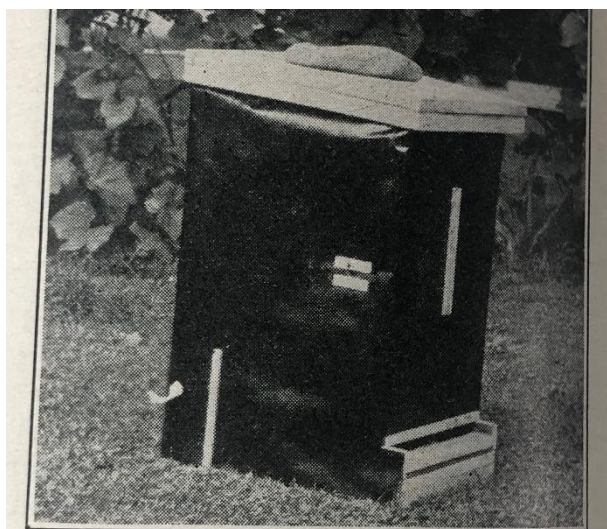
First, let me say I am convinced that honeybees in a tree without any human helping hand can survive winter provided that Varroa mites have not already reduced the bee population to the point that the winter cluster can not provide cluster heat to survive.

Bee management during the winter season is quite different depending on where one lives.

In northern states: The question is to wrap or not wrap hives for winter cold.

I checked back into some early reports from my collection of "*Gleanings in Bee Culture*" and C.C. Miller's book "*Fifty Years Among the Bees*."

- In the 1880's C.C. Miller refers to moving bees to winter in the cellar of his house. Of 162 colonies put into the cellar in the fall only 67 survived the winter.
- The 1915 edition of *Gleanings* is filled with ideas to protect bees during winter. Dr. Phillips identified problems by saying: "If colonies are weak going into winter quarters they are not an asset in any kind of case."
- Magazine issues of that time have a number of articles about "Winter Cases." A winter case was a box in which hives were placed. The case was then packed with straw, leaves, wood chips and other types of insulation.
- And then other methods were used -- I have taken pictures of some of them.



Packing completed. Note the entrance for the upper colony.

This is and was a typical wrapping for winter. Tar paper is widely available at building supply stores. Normally a beekeeper can get by with underlayment roofing felt. It is black and absorbs sun heat which helps warm the hive. Tar paper is put on hives usually after cold weather has begun. It is then taken off when weather warms up – March or April.

An upper entrance is required so moisture is not trapped in the hive.

Bee hive covers are also available for beekeepers to slip over a hive for winter protection. More on that in next weeks article. There are photographs later in this article to show you what I did when I lived in Ohio. Some of my friends here in the Raleigh area

use insulated sheets to tack on a hive making something of a hive wrap but most bees are not wrapped because our winters are usually mild.

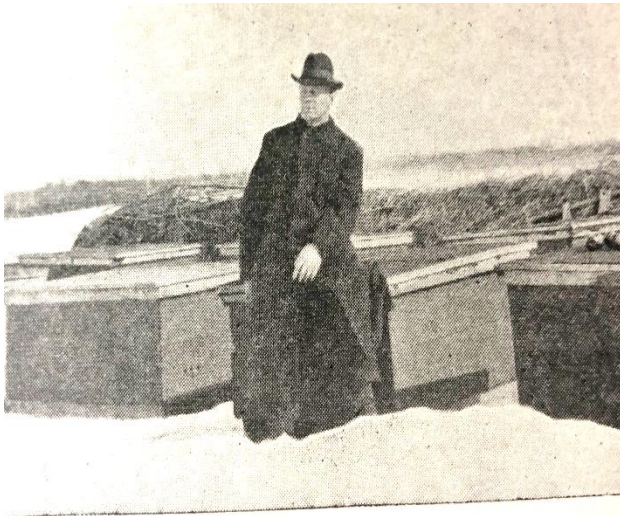
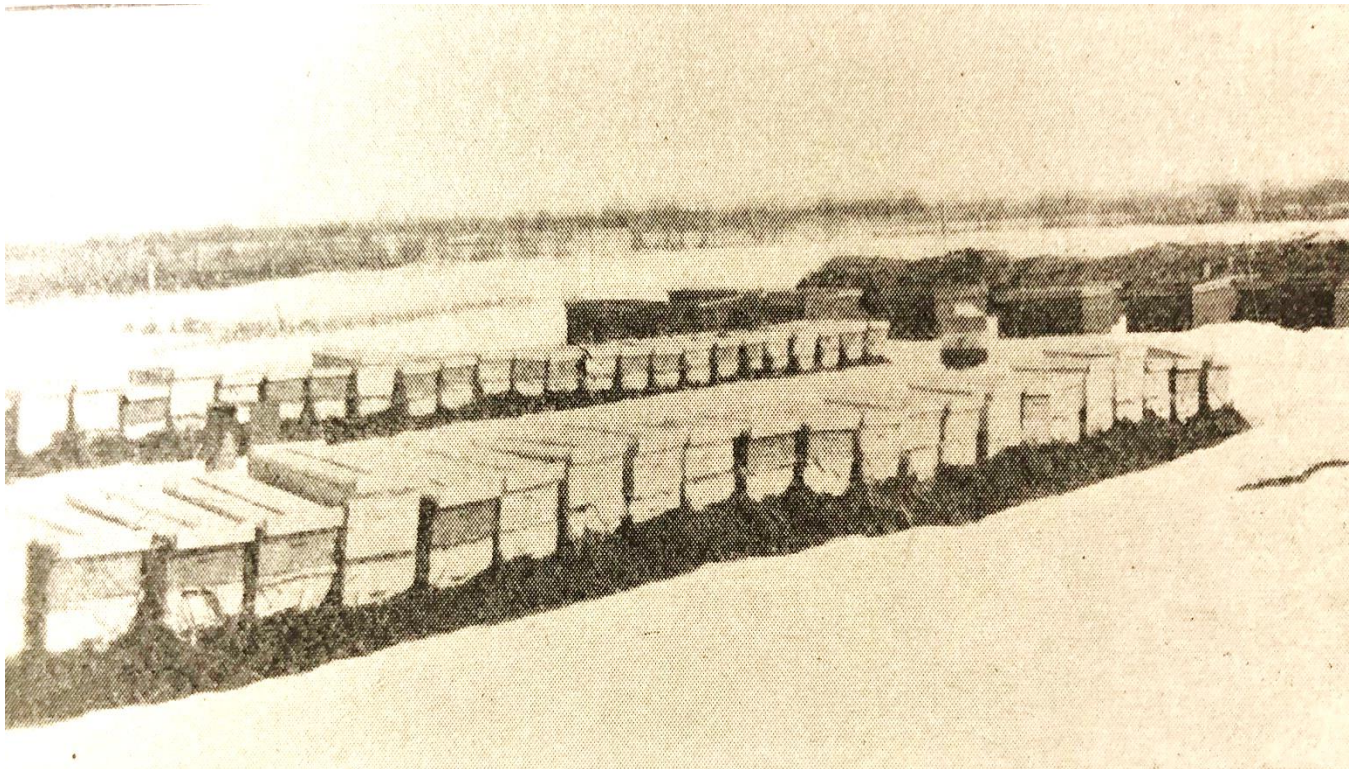


FIG. 5.—Mr. Anderson himself and some of his colonies packed in Holtermann winter cases.

This is an example of packing cases. The case was filled with insulation after hives were placed in it. Case size varied by the number of hives it would hold.

Various articles share how they should be constructed. One problem using packing cases is mice also appreciate finding shelter in them.

Most hives in those days were double deep Langstroth hives. Some were overwintered as single deep hives. The problem was -- when to put bees into boxes and when to take them out. Boxes were designed with flight ports so bees could fly on warm winter days.



I am sure burying hives or hilling up hives was a lot of work. I would not recommend this! I just wanted to share how some tried to solve wintering bees. These hives all had upper entrances. The lower entrances were covered with dirt. I have carried hives thru the winter by moving them into tight clusters—no gap or space between hives. Note the hives in the above picture do not have telescoping covers. All except the end colonies have just two exposed side surfaces.

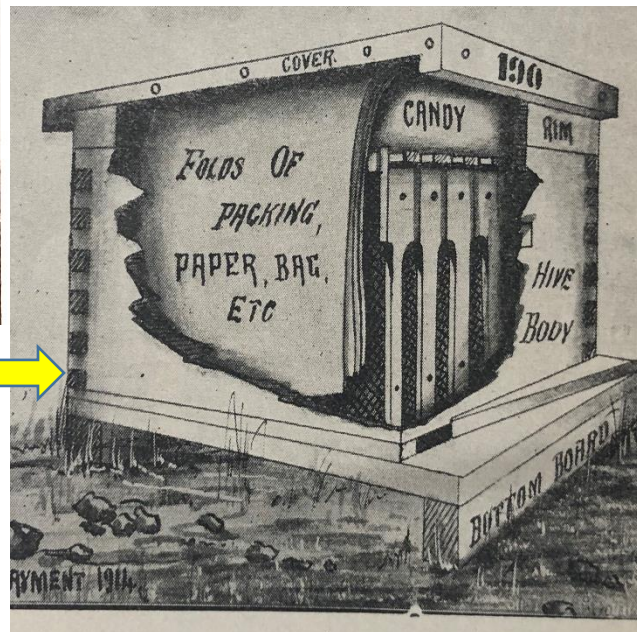


This is an interesting way to over winter two single hives.

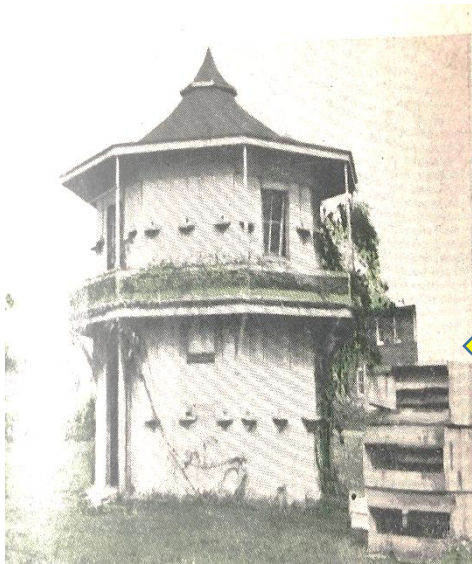
I am not sure exactly what was used between the two hives but I have doubled-up hives like this. I used a double screen board (no insulation) between the two single hives.

I could see the possibility of using tar paper around this method but arrangements need to be made so bees can fly from the upper hive.

Another way:



This was an interesting picture of over wintering a hive of bees. It shows a candy board above frames with a rim to allow space for the candy board and a



covering of paper draped over frames in the hive. I assume that the outside frames were removed because during the coldest part of winter, one doesn't usually find bees in the outside frames. Could work with a hive with a small population of bees.

Finally, a comment about building a bee house. I am not sure how many of you can recognize this picture. It was one of the biggest mistakes made by A.I. Root. He shares his story for why in his autobiography.

As reported by his son, E.R. Root, A.I. Root had a dream of beauty and a place to carry out his ideas. This building was removed prior to September 1930 for a larger woodworking shop where the old classic beeyard was located in Medina, Ohio.

As told by A.I. Root his idea was to provide a building to over winter his hives. In the center of the building was a stove to help keep the bees somewhat protected from cold weather!

The Mistake: The building was warmed on cold days and bees reacted to the warmth within the building by flying from the entrance of each hive. When these bees left the warm hive they were greeted with cold air. Instantly they dropped to the ground to die.

As E.R. Root tells the story, “father decided to make a house-apiary and with this he did some of his best research work. He (A.I.) thought he could winter bees in this building by making it double-walled and used artificial heat. He could house 50 hives within arm’s reach.” E.R. says, “It looked like a good scheme, but we now know that artificial heat for bees being wintered either out-of-doors or inside, when they can’t fly is a mistake. The heat causes the bees to become active and keeps up brood-rearing, more or less and the result is disastrous.” E.R. also shares that A.I. tried to cover all his colonies with big heaps of common stable manure. That experiment also resulted in a heavy loss of bees. I just wonder how one would find that much stable manure in today’s world!

Experience over a number of years without wrapping hives worked rather well for me in Ohio. I still see beekeepers thinking about making the bees warm for the winter season. The result is: active bees eat more food and die when they leave a hive thinking the weather outside the hive is also warm. Wind breaks, hive covers and heavy insulated boxes help somewhat.

Tarps are easy to manage with just a few hives or a lot of hives. All hives have exposed entrances so bees can fly when outside temperatures allow.



Just a thought if you need to provide some temporary winter protection quickly.

These covered hives survived the winter season of 2014 well. I did remove the tarps when weather conditions improved. The tarps could be put back on the bees if weather changed back to snow and colder temperatures. No nailing of strips to hold the tarps. Just rocks and a few ropes held everything in place. So much for the wind chill factor. Large hive populations and food are still needed to provide heat for the winter cluster to survive.

Dana Stahlman
