

## Day 1

We are quiet. Only a few of the nurses are busy with the young ones developing in the center of the cluster we make to protect them and ourselves. The Winter has been long and lacking the protection of snow. The solstice passed many weeks ago and the days are getting longer, our mandate to begin brood rearing. But the equinox, where day and night are equal has not arrived and there are many cold and quiet days ahead of us before the noise returns. We think of the noise, the collection of food from the flowers, making beebread, processing nectar into honey and rearing comb after comb of young bees. But now we must remain quiet.

We are on rations. We hear the opening of the few remaining capped cells of honey within the confines of the cluster as a few bees fill their stomachs and offer the food to the nurse bees to care for the developing young. The rest wait their turn as tiny amounts of the intense sweetness is given to us to continue heating the cluster so the young ones will grow. When the rations become low the old bees, the ones who foraged in the Fall, refuse the food and hang on until slowly one by one they drop to the floor below. When the weather warms and we are able to break free from our quiet cluster, we will remove our dead sisters from the hive and carry them out into the world where they will return to earth. We cannot allow the dead to remain within the hive. Until now we have needed the older bees to help keep the cluster alive, but now we are at peril as the cold and dwindling supply of stored honey combine with too many flightless days. The quiet must continue.

We are the hedgerow hive on the north. We were made last Summer from the middle hive on the hive stand. The human found queen cells and announced to us that she would make a new hive with the cells, and formed us with a frame of brood on which the queen cells were found. And extra bees were shaken into the empty box. The queen cells were nearly ready, but we sensed that the first queen ready to emerge was too old when she was started, and we kept her locked in her cell until a queen produced from a younger larva was ready to emerge. We allowed the younger queen and she destroyed all the queens in queen cells, even a few

the human had missed.

The young queen was enthusiastic and mated well; there are 18 fathers in our midst, all of us sharing the same mother. Several of the fathers gave us the ability to smell sick bees inside the nurse cells, and to remove them; the rest of us give aid if they request. They removed larvae that would become chalkbrood and foulbrood, and they removed the sly creatures the human calls *damned-varroa*. Yet we are not free of the *damned-varroa*, they hide in the folds of our bodies and in the cells of the young ones. We must be very fast to catch them and bite them, but they are so fast and hard to grasp. Our ancient stories did not include stories of *damned-varroa*. Only a few seasons ago did they arrive.

## Day 2

We were made from an over wintered colony kept by humans 35 miles away. That over-wintered colony was a swarm the other humans removed from an apple tree in an orchard. Before that we know earlier parts of our family were in both the south and the north. We come from hives that visited almond and blueberry flowers in the same year but huge distances apart. They endured stress, disease and chemical treatments while on the road. Now, we sit in our yard, along a row of hardwood trees growing along a rock wall that protects us from the winds of Winter. We know the almonds are blooming now, but we are here, next to our hedgerow, in a colder place many miles from the

# Naked Combs & Empty Spaces

## A week in the life of a hive - in Winter!

Larry Connor

warmth of the almonds. We remain quiet until the weather warms and the first flowers open.

Last night and all morning it snowed, and now nearly 10 inches of lightly packed snow sits on our hive and gives a bit more protection from the cold - not enough to break cluster - but we do not have to consume as many cells of honey to feed the developing young ones and to keep alive ourselves. It has helped us remain quiet. There is nothing we can do but remain inactive, metabolizing heat from the honey to form the cluster



*A Winter cluster. (Connor photo)*

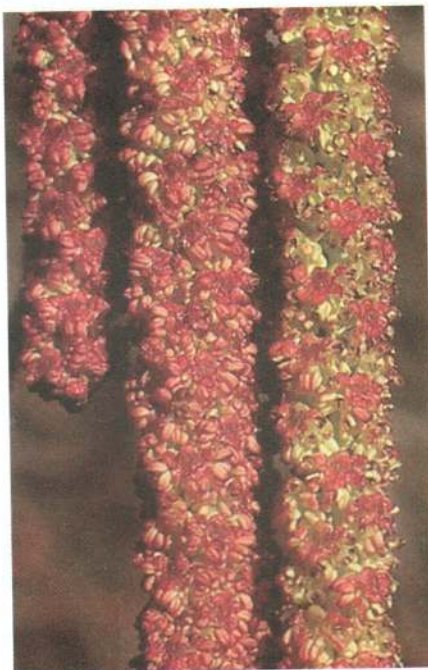
and keep the brood, and the cluster, at the right temperature.

Our future is the young ones, the eggs and larvae that are being fed by the young nurse bees that are rapidly depleting their reserves of energy as they feed. The nurse bees are starting to smell like forager bees, too old too early, and it is too soon for them to drain their nutritional reserves. But they were themselves produced during the Fall under poor conditions, when the food coming into the hive was poor in both quality and quantity. And now we see them struggling to keep the young ones fed the way we want. We know that if they cannot feed the developing young ones well enough we will be at risk.

### Day 3

Naked combs surround us. The temperature outside has dropped and we are in tight cluster. The ovals of developing young ones holds us in our space, and we cannot expand to reach the food above and beside us because of the penetrating cold. The human visited us days ago and placed a frame of honey into the hive, but it is on the edge of the comb, and we cannot reach it. There are thousands of cells of honey essential to our colony's cluster heating, and the essential pollen for feeding our young ones in *that* frame. We smell it. But we cannot reach it. It is too far away.

During the night the queen was placed on light feeding, and is no



Alder amulets. (Connor photo)

longer producing eggs. Now the nurse bees have eaten the eggs that would have become young ones. This will set back our development, but there is no choice. We hope they can stop there, and will keep the young larvae fed well enough to survive. We eat the last few cells of remaining honey and kept the nest cluster warm as best we can during the cold night.

### Day 4

The sun warms our hive in the early morning, and the cluster is able to loosen. A few house bees break from the cluster and reach the frame of honey added by the human. They are able to move some of the food back to us before the sun disappears behind clouds and the temperature sharply drops. Some of the house bees are still at the honey frame and are most likely dead, but they moved just enough honey to keep us alive for awhile. The queen is kept on light feeding, and no more eggs are placed in the cells.

The clouds have brought in weather from the south. It rained, but the rain froze to everything it touched. A fine coating of ice forms on the snow around the hive, but we are able to get enough air through the loosely packed snow beneath the ice. The frozen rain hits the side of the hive and coats it with a silver layer of frozen water. It is a long night to remain quiet in the cluster. We wonder why the human didn't position the frame of honey adjacent to the cluster area, and why she put it on the edge of the comb. Just a few combs closer and we would be guaranteed survival, but now we are not sure if we will see the warmth of Spring.

### Day 5

Finally, the weather from the south has brought warmer air. After the rain finished the temperature rose, and when the sun reached our hive along the hedgerow in the morning, we had a sudden temperature spike. The cluster is able first to loosen, and then actually breaks! Hundreds of workers are able to reach the frame of honey added by the human, and to reach the stores from the previous season. First, all bees are given a complete feeding, some for the first time in many weeks. Then the honey is systematically moved from the outside frame to the area around the cluster of young.

Some bees attempt flights, but are kept inside by the strong wind that came with the receding front. We wait for flight weather conditions to improve so we may start searching for food, and continue to move the food where we need it in the hive.

### Day 6

The early sun is bright and the wind is calm. At first a few foragers leave the hive to search for food, and only a few return with negative reports. But they continue to search, and more join them as the daylight increases. Finally a scout bee returns covered with pollen from the cabbage plant growing in the wetlands to the west. She dances enthusiastically and shares her taste of honey and pollen as she tells the story of this amazing plant. When she arrived she was cold, too cold, she knew, to return to the hive. But the amazing cabbage flower was warm inside the inconspicuous scape, the center of the flower generating heat so brave pollinating insects would be able to return to their homes. Foragers are recruited to join in the search for cabbage flowers throughout the wetlands.

A few hours later other scout bees return with samples of pollen from the alder flowers, their amulets hanging low over the swamp water and ice and dusting the bees with the airborne pollen. The resulting pollen is immediately brought to the nest area where the young ones are growing, and the nurse bees consume it to make more food for the developing young. The queen is again put on full rations, and soon starts producing eggs to replace those eaten in the dark desperation of naked combs.

In the warmth, many bees are able to make cleansing flights. The entire hive seems to smell better now as waste products are finally deposited outside.

At the end of the day the temperature falls rapidly and we soon re-form our cluster, but the honey from the added frame has saved our colony, and the incoming pollen has insured that the young ones will be fed as they complete their growth. The nurse bees smell more like nurse bees now, with fresh pollen in their intestines being digested into brood food.

## Day 7

The soft maples in the swamp are producing pollen and nectar, and we are able to collect from the bright red flowers for much of the day. The olive-green pollen is a welcome addition to our collection of food in the brood area. The strong winds keep the foragers working to get to the trees and collect food essential to our late Winter survival.

Are we out of danger? No. True, there is a ring of pollen around the developing brood, as well as a ring of honey. But most of the comb in the hive is empty, naked and a stark reminder of the delicate balance we have to increase our colony, and its death. Perhaps the beekeeper will bring us other food and give it to us in a way that we are able to use it. Perhaps the weather will continue to support foraging and we will gather abundant food needed for survival and increase our production.

The risk will continue if cold and unfavorable flight weather return. Not until some time in middle Spring will we be secure in our weather and until then we must carefully collect and store the resources we needed, the pollen and nectar, to grow and increase our colony, the hedgerow colony on the north. **BC**

*When not thinking about what, if anything, bees think about, Dr. Larry Connor is thinking about sex, Bee Sex especially, his next book due out whenever he finishes it. Feel welcome to interfere his thoughts and writing by sending email at ebeebooks@aol.com.*

**Catch The Buzz  
Sign Up Today At  
[www.BeeCulture.com](http://www.BeeCulture.com)**

## Subscribe Today!

visit us online at: [www.farmingmagazine.net](http://www.farmingmagazine.net)



A Quarterly Publication

1 year - \$18 (4 issues)

Canadian subscribers: \$24

2 years - \$32 (8 issues)

Canadian subscribers: \$45

Please mail check or Money order to:

Farming Magazine  
PO Box 85  
Mt. Hope, OH 44660

**FARMING MAGAZINE**

"The Magazine that offers hope to the small Farmer"

# Jump Start Your Business!

## ACCEPT CREDIT CARDS!

**STOP LOSING CUSTOMERS! ACCEPT VISA, MASTERCARD, DISCOVER & AMERICAN EXPRESS**  
Increase Sales, Attract Clients, Improve Cash flow! Merchant Accounts for all businesses -  
New, Home-based, Mobile service, Retail, Trade show, Restaurant! Newest Point-of Sale Technology!  
All Credit & Debit Card Funds Are Guaranteed & Deposited To Any Checking Account!

**WIRELESS TRANSMITTERS! GPRS CELLULAR! LANDLINE POS! CHECK GUARANTEE!**  
Merchant Services Agent Sales Representative CashSolutions, LLC,  
Retriever Payment Systems, Independent Credit Card Processing Representative for First National Bank of Omaha

### CALL 800-823-7542

## Texas Queens & Package Bees

No minimum order. Available April-June

### Traits

Varroa and Tracheal Mite resistant  
No chemical treatments since 2001  
Good Honey Producers  
Easy to keep alive

### Queen Pricing

1-19	21.00
20-99	19.00
100-499	17.00
500+	16.00

Add 1.00 for clipping/markings

### Package Bee Pricing

3# Package	\$90.00
	\$15.00 shipping

Reduced prices for all package  
bee orders picked up by customer

**B. Weaver**  
Apiculturists  
INC.

Order on-line [beeweaver.com](http://beeweaver.com)

Email [info@beeweaver.com](mailto:info@beeweaver.com)

M-F, 9 to 1 Central Time

Phone 936-825-7312

Fax 936-825-7351

16481 CR 319

Navasota, TX 77868