



[www.Barrybees.co.uk](http://www.Barrybees.co.uk)

## Barry's Bees

### Preserving Bees for Our Future

#### JANUARY NEWS LETTER

#### Topics for this News Letter

Winter Starvation, Isolation Starvation, Hive Checks for Food, Warmth, Dryness  
Ventilation and Pests

As our seasons become less defined and our weather becomes more unpredictable, certainly from what as children we were used to, January's weather can seem just as unpredictable too. This will to a large extent be dependent on what part of the country you live in. Your hives can be covered in snow or maybe heavy frost or perhaps perched perilously on hive stands just millimetres above flooded pastures. Whatever the situation you find your hives in, for the bees, January is the most inactive month.

They should be clustered tightly around small patches of brood, their queen and within easy reach of the stores they so carefully collected throughout the summer months. However, if the beekeeper has forgotten to remove the queen excluder or not provided sufficient winter feed for them to get by, then they can become vulnerable to starvation, isolation starvation or chilling through cold and damp.

It is now more than ever that the bees need our help. We as beekeepers should ensure the hive is kept dry, the colony has sufficient stores and remains both well ventilated and pest free.



**Above** - Overwintered hives in sheltered location



**Left and Right** – The aftermath of flash flooding in both urban and rural kept apiaries.

The result of changes to our weather systems, climate, development practices and other factors.

Devastating to the beekeeper!



**Winter Starvation:-** This occurs when the colony simply runs out of stores. There may be several contributory factors to this, but the hard reality is the colony has died through starvation.

**Contributory factors:-** These could be some or all of the following. The colony could have been a late swarm and couldn't build up sufficient strength to forage for appropriate volumes of stores. It could be the colony has not managed to collect sufficient nectar, process it and store it as capped honey, enabling it survive a winter. It could be that the bee keeper has taken too much honey from them leaving them short and where the bee keeper has given the colony stores, it was too late to process the sugar water given as a replacement or the beekeeper failed to provide sufficient sugar water to sustain the colony.

Whatever the cause, the colony does not have sufficient honey to make it through the winter months and into the spring when conditions should improve.

**Conclusion:-** Gauge the size and strength of the colony as you prepare to overwinter them. Monitor what stores they already have and what you have taken off. Replace the winter stores (Sugar syrup) in plenty of time to allow them to process it. Generally speaking in a normal winter a 10 frame colony will require 30-50 lbs, of honey to survive. On a National beehive single brood box this would be 1 full honey super.



**Isolation Starvation:-** This occurs when the colony becomes isolated from its food source/supplies or many individual bees become separated and chilled from the warmth of the main colony. There may be several contributory factors to this. However, they can easily be avoided and fixed by the bee keeper.

**Colony behaviour -** During winter the bees will cluster around the queen and any small pockets of brood they are nursing. The cluster will move and rotate around one another to regulate the internal temperature of the colony and prevent chilling of the bees on the outside of the moving cluster. Heat is regulated by the movement of bees and the related consumption of stores as they pass over them. Penguins behave in the same way when huddled in an arctic storm.

**Contributory factors:-** If the bee keeper has left the queen excluder in place during winter prep, the queen is prevented from following the moving cluster and therefore she becomes isolated along with the bees that are looking after her. Once the stores within the immediate area of the queen are consumed the colony will die out. As bees move over the honey frames they consume the necessary stores to sustain the colony and generate heat. However, if the temperature suddenly drops and the bees cluster even harder than before, they can become isolated from the remaining food source in the hive and die out.

If a colony is poorly sited and there are insufficient nectar producing flowers and plants, the colony will struggle to collect the required stores to overwinter and the colony will eventually die out.

**Conclusion:-** Remove the queen excluder before winter and conduct a proper check of the colonies stores to ensure they have sufficient to get through a hard prolonged winter.

When sighting your hives ensure there are sufficient different flowers and nectar sources within a 7 mile radius (approximately 11km) of where the hive is. This will ensure the colony survival.



**Hive Checks for Food:-** Assessing the strength and size of the colony before you prepare to close them up for winter, will give you the ability to gauge what stores they already have and what they require. Where stores are required ensure they are fed early enough to the bees to allow them time to process the sugar syrup and store it in the frames as ripened winter food. Failure to do so will result in the bees not consuming it. Once the colony has the stores it requires “Heft” the hive to gauge its weight. Continue to do this through the winter months.

**Emergency feed –** If an emergency feed is given, ensure this is applied on top of the crown board to prevent substantial heat loss to the colony.



**Warmth, Dryness and Ventilation:-** Bees will and do benefit from the beekeeper providing extra protection and warmth to the hive and colony. The use of insulating boards, thermal jackets or liners, polystyrene, plastic sheets, fencing or hay bale screen have all proved successful. They help the bees retain hive and colony temperatures, reflect heat back to the colony, help prevent isolation starvation and promote early growth of the colony. However, where these items are utilised by the beekeeper, they must ensure they do not stop or prevent adequate ventilation circulating within the hive. Ensure entrances and air vents are reduced but kept open and clear. This prevents the hive from becoming damp which encourages mould and other fungal growth.

**Vermin and Pest Damage:-** Mice and birds can create problems for the colony. If a mouse gets inside the entrance which they can easily do they will destroy valuable comb, eat stores, contaminate the hive with urine and faeces and drive the bees out. Squirrels and birds like woodpeckers can break through the outer walls of the hive, exposing the colony to the elements and other intruders. The result to the bees is devastating. Easy fixes are to protect the entrance with a mouse guard and protect the outer wall of the colony with chicken wire.



## Jobs to Complete in January

- 1.** Inspect your bee site (Apiary) to ensure all the hives within your care are still firmly supported on the hive stands or pallets, especially after rough weather, wind, snow and heavy or prolong periods of rain. Where required reinforce the stands with rocks, gravel or stones to prevent the hive stand from sinking into the soft soil, toppling over or floating off in floods. Consider moving the hives if this cannot be achieved and make a mental note to improve the hive bases (stands) for next season.
- 2.** Ensure the hives are waterproof, dry and ventilated, checking that there is no visible sign of water getting into the colony. Replace any plastic sheets or waterproofing as needed. Ensure nothing is blocking the entrance or ventilation holes.
- 3.** Ensure the hive entrance is still protected with a mouse guard and no vermin damage has occurred to the outside of the hive walls. Check the mouse guard is secured in place with drawing or map pins. IF NOT get one on the hive! Where used ensure the wire mesh (Chicken wire) is still securely fastened around and away from the hive sides to prevent damage from woodpeckers, squirrels and rabbits.
- 4.** Heft the hive corner to ensure there is still sufficient weight within the colony and therefore sufficient stores left. This should be based on your earlier season physical and visual check. If the weight has significantly dropped or you suspect the colony is running short of stores, give them an emergency feed using fondant. Try to avoid opening the hive fully and exposing the colony to the cold. It is better to feed them through a crown board or modified crown board with good insulation and ventilation. Monitor your bees throughout the coming months -they are now at their most vulnerable!!!

### Preparing for the New Season

Check the January sales and pick up your new frames and wax for the colonies. Consider purchasing your Varroa treatments and controls and replacing any tools or equipment you may require to make your life and the lives of the bees better. Build your frames now!! However, don't place the wax in them unless it can be stored at a good room temperature. Wax will become brittle and is prone to snapping in cold weather. If you haven't started it already, consider cleaning all your equipment prior to the new season starting and repair any items that are damaged. I always start the cleaning in December, that way I know what needs replacing and can pick it up in the January sales.

