

Stahlman beekeeping notes for 2021

Issue # 44 Moving Hives of bees

A large number of beekeepers do not have to move a hive of honey bees. They are kept in permanent locations – usually in the beekeepers home yard. A move in that case may be done but a hive is not loaded onto a vehicle for the move.

Let's take a look at how honey bees react to being moved:

Bees orientate to a precise location. Young adult bees 19 to 21 days old guard the entrance to the hive and begin to forage. A common event often observed by beekeepers is the new foraging bees hovering about the entrance fixing the location into their memory. Once that memory is implanted, foraging bees will return to that location. Even if a hive is moved several feet away, the returning bees will return to the old location before exploring the area near-by for their hive.

- **Relocating any hive of bees produces stress on a colony.**

I can understand the reasons for moving a hive or colony of bees. The reasons vary and the move will differ in respect to why the colony is being moved.

Most beekeepers contemplating a move have a very good reason to do it.

For example, residential area bees can be causing problems to neighbors. Bees love water – i.e. Swimming pools, hot tubs, hummingbird feeders, a pet's watering dish.

Another category is made up of beekeepers moving bees for better honey crops and pollination.

A few beekeepers buy existing hives located some distance from their back yard.

And finally, a beekeeper wanting to move a hive of bees to a different location on the same property.

Moving principles:

- A hive moved within the flight zone (usually considered 2 - 3 mile distant) results in bees returning to the location planted in their memory. If their hive is gone, they will drift to other near-by hives or fly in search of it.

- Moving a hive during daylight hours has consequences for both the bees and the people who occupy nearby properties.
- It is best to move a hive of bees after the foragers have returned to the hive in the evening or before the sun comes up in the morning when foragers are leaving the hive.
- Overheating and suffocation should be a constant concern in hot weather. Confined to a hive being moved could cause the bees to die if ventilation is not available.
- Established hives are usually very heavy requiring additional manpower to move them.
- There is always some danger that bees will be squashed by moving parts within the hive. This might be the case in which a 10 frame hive body only has 9 frames.
- Rough handling of a hive will result in very unhappy bees. Thus, it is important to provide some form of moving screen.

Many things need to be considered when moving a hive of bees: [Planning]

How far? How heavy? How many? Where to? What tools and equipment will be needed? What means of transportation? What route if highways are used? What help will be needed?

A Short Move -- Moving a hive of bees on the same property.

Many beekeepers find that the location of a bee hive must be moved for various reasons.

What is unique in a situation like this?

- Regardless of the time of the move, bees will become disoriented and confused. Even if a hive is moved at night, the bees leaving the hive in the morning will be confused when they return.
- To prevent this confused state of the honey bees searching for their hive, a hive of bees should be moved in stages of several feet at a time.
- This may take a period of time (days) to complete.
- A trailer or truck would not be required. Just a little bit of ingenuity or a hand truck.
- An alternate move would be to move the hive several miles away – more than three miles is suggested for a period of several weeks. This would require a second move back to locate the hive where it needs to be. This would require a greater effort as described in a Longer Move below.

A Move of several miles or more – Requires a vehicle, trailer or truck and help.

Anytime honey bees are placed on a vehicle, the beekeeper should not take the trip without considering a number of potential problems moving hives of bees if one does not own the land.

Things to consider:

- Has the intended new location been visited previously?
- Bee hives can be heavy. It is best to remove any honey supers on hives. Weight is an important consideration when moving bees!
- Does the beekeeper have a formal written agreement with the land owner covering such things as:
 - Have arrangements been made for vehicular access to the site such as combinations or keys for locks on gates?
 - Has the landowner agreed on the location for hives? The landowner may have a different idea about where the bees are located!
 - Does anyone else know where the hives are placed?
 - Has the topic "risk of stings" been discussed regarding individuals visiting the landowner's property?
 - How secure will the bee hives be from vandalism or theft?
 - What does the owner of the land expect in return for you placing bees on his/her property?

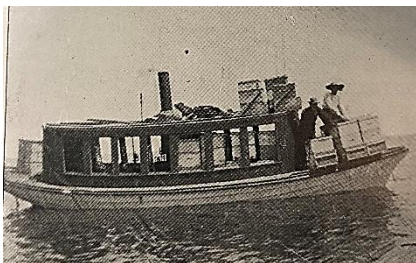
I hate to mention this, but I can share a story of a beekeeper who was denied permission to visit his bees by a landowner who put up a locked gate to prevent access to the property. The beekeeper fortunately had registered his bees with the state department of agriculture so ownership was not a problem. But the landowner did not want the beekeeper visiting the bees without notice 24 hours in advance. That is a right of the landowner! If I was the beekeeper and the notice presented a problem for me, I would move my bees out of that location.

A verbal agreement is "he said "?" and this is what I agreed to"! Lawyers get involved at that point if there is a problem. If many hives are to be placed on a location, it is wise to have any agreement in writing.

Preparation for a Move

I thought it interesting to share some photos from "The A B C and X Y Z of Bee Culture" published in 1913.

When one thinks about moving bee hives, ask about how the European honey bee got to the



North American continent? One of the advantages of working with bees, is the flexibility to move them.

For a beekeeper moving one to thirty hives -- a trailer with a drop down rear gate is ideal.



A 5 X 8 foot trailer is very handy as is a hand truck. This allows a beekeeper the ability to move a hive of bees without help. It is limited however to the number of hives that can be moved at a time.



A person can not use too much rope when moving hives of bees. If only one hive is moved as shown here, it should be centered near the front of the trailer. The wire flooring of this trailer allowed placing rope as tight as possible around the hive and the hand truck. It is important when loading bees that there is more weight ahead of the axel than behind it. More weight behind the wheels will cause the trailer to bounce and swing as it is being pulled. Thus, giving the bees in the hive a rough journey.

When a hive must be lifted – such as placing the hive on the bed of a pick-up truck, two individuals are required.



Commercial beekeepers move more hives and have the income from hive rentals and honey crops to afford more expensive equipment such as shown here.

Their bee hives are kept on pallets used as the bottom board. Usually, 4 to 6 hives are placed on a pallet. Rather than move one hive at a time, four – six hives are moved.

Winter is a good time to move hives of honey bees. The bees

are in tight clusters and the ground is frozen – getting stuck is always a problem when moving hives in the spring or anytime the ground is soft.



Bee hives are moved around the United States for pollination by a number of beekeepers. Growers paying for pollination expect results. Generally, one or two hives per acre are placed on crops to be pollinated. The work requires staying on strict schedules – bees are dropped before blossoms open and are picked up by the beekeeper when short notice is given by the growers to get the bees out as soon as the bees are not needed.

Guidelines for moving single hives of bees:

- Prior to moving bees – bee hives need to be strapped down and entrance screens placed on hives. Ratchet straps work well in holding hive bodies together to prevent them from coming apart. Straps will keep bottom board, top cover and hive bodies in place. Moving screens can be rather simple -- wire screen stapled over the hive entrance so bees can not get out. The entrance is closed after the sun sets and foraging bees have returned to the hive.
- If hive bodies shift or break apart, bees inside the hive can get out. The beekeeper will face a serious problem with honey bees in no mood to be gentle.
- Bee hives can be quite heavy to move. Get help if moving them by hand.
- Bees should not be overcrowded – bees need room and good ventilation. Moving bees in hot weather and the possibility of the bees bearding on the front of the hive will require the addition of an extra super for the bee population. Top moving screens are sold to place on hives in place of the inner cover and top cover.
- Hives should be secured to the trailer, or truck that is carrying them. Quick stops and swerving can dislodge hives. If you want a few minutes on TV, a bee accident is sure to attract TV reporters attention.
- Ideal times to move bees are late evening and early morning when air temperatures are low. Traffic is lighter.
- A bee net may be a good investment. Shade screens can be purchased at Harbor Freight at little cost. Used as a bee net, it will keep any bees that are on the load from escaping from hives. If moving the bees long distance, any stop at a gas station can be a revealing experience if bees can escape from their hives. I have also been told by an attorney that the bee net covering a load of bees shows that the beekeeper is using due caution to prevent stinging incidents.

- Always suit up when loading bees, and carry a smoker with you at all times during the move.



This is a typical move of bees to sourwood country for a honey crop. The orange cover seen on the trailer over the bee hives is a bee net. Often, bee hives placed on a trailer like this do not have their entrances closed off. This allows bees to cluster outside the hive during a move in hot weather.

Once bees are loaded for moving, the task of getting them to the new location is faced with hazards on the road. Drive defensively. [Start – stop – start] driving is not good for bees being moved. I liked moving bees at night. I would find a semi-truck that seemed to be going the speed I liked – get behind it allowing enough space to slowly stop. I called it my "Rabbit". My truck was always gassed up and any stops anticipated were planned stops.

I have seen a few accidents involving trucks hauling bees. A major problem is the driver going to sleep at the wheel. BIG MESS!

Unloading bees after a move: The goal is reached after all the planning!

Driving into an unknown bee yard while it is still dark is a challenge. If one leaves a good road to drive onto unknown ground, trouble could be waiting especially after wet rainy weather.

The reason for visiting the site previously should be pretty obvious.

The site selected will become the new location of the bee hive or hives. All planning on hive placement should have already been considered. The smoker should be lit before the removal of hives begins. Suiting up is good.

What remains is removing the hives from the truck or trailer. Once the hives and bees are off (I have seen a bee hive moved on the back of a car), care should be taken that the bees are not roughly handled.

After the move, a visit in a day or so is wise. It will confirm that the move was successful for the bees. One can then follow up with regular hive inspections and other management requirements.

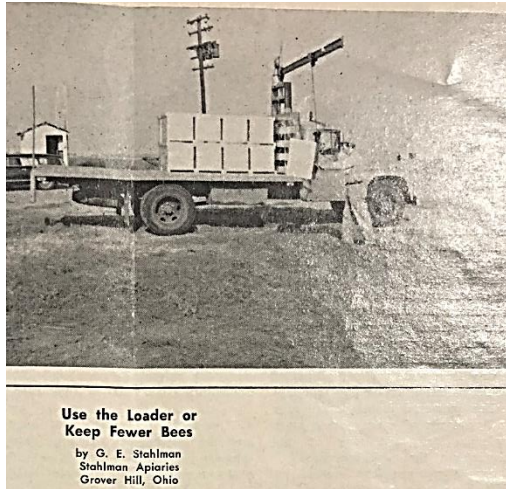
Additional comments:

If one has never moved a hive of bees, I would not take on the task lightly. Make sure one has enough help! A dropped hive of bees comes apart with all kinds of [hell to pay].

Once the bees are out of sight and the beekeeper is no longer in control of the location, frequent trips to the bee yard should become a regular practice after weather events. The

landowner might be of help to relieve your mind of what might be going on in the beeyard in your absence. I always consider honey a good attempt to keep the landowner somewhat invested in the interest of the bees.

Currently I have a very good out-yard and an excellent landowner to work with. I always ask if he needs honey. I usually carry a quart of honey in my truck just in case he says, "he is out or close to being out." This year he even volunteered to plant a five acre plot of buckwheat for my bees. He gets free pollination for his farm and I get an outstand place to keep my bees without any hassle.



Moving bees goes back many years in my family.

The old way was a Kelley Hive Loader that could handle 400 pounds of weight - one hive at a time. It was considered a welcome relief to a breaking back effort to pick up bee hives by hand.

I have lived to see the way bees are moved for pollination. The Kelley Hive Loader saved many man hours of work. Today's skid loaders have improved time to load a truck with several hundred hives of bees.

Looking Back: As a youth, I worked in bee yards with a loader like this. My job was to smoke the entrances to the hives, start the smokers, and go for this and that. Loaders – today are mostly skid-steer type because this loader only picked up one hive at a time.

This article may help some to understand the loss of honey bee habitat. 50 – 60 colonies in a bee yard then. Taking off 200 supers filled with honey in four hours. Beekeeping management practices have changed so much from then to now!

Without a way to move bees, we would not have a commercial beekeeping industry today.

When I think of the statement "honeybees are responsible for 40% of the food we eat", I consider that to include the vast amount of pollinated crops provided bees by those who move bees from location to location.

The article below was written by my uncle in 1959 and published in the American Bee Journal. It brings back many memories of getting up early and working till sun down. For reference, The Monthly Honey Report in January 1961 from Gleanings in Bee Culture list retail prices for honey –

1 -lb. jar.. .43 Cents 3 -lb. package of bees.... \$4.75 A Kelley 4 fame extractor..... \$38.00 Queens... .75 cents or if one bought more than 25... .65 cents. (A subscription to Gleanings ... \$2.50 a year) These were called the good old days!

Use the Loader or Keep Fewer Bees

by G. E. Stahlman
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If it were not for the use of a loader I believe I would curtail my operations. It is the one piece of equipment that has made our work profitable and it has made crops possible that otherwise we never would have obtained.

We do a lot of migratory bee-keeping and the loader saves us countless hours and frayed nerves with a minimum amount of labor. One man can load 120 2-story colonies, in 1½ hours with a minimum of stinging and not much hard work. There is little lifting and regardless of how heavy the colony is it goes on the truck with little disturbance so that many times we are through loading with no fuss among the bees in the yard. Moving bees with a loader is a one-man proposition.

Many times we have to move yards short distances for a better location and often they are supered up four or five stories high. Formerly we would have had to remove the supers and lots of times they would be partly filled with honey at a temperature of 90 degrees so we would let the bees stay there rather than to try to make the move.

With a loader we never worry about the weight or the supering or the weather. We just go to the yard, load the bees and make the move, some 44 colonies to a load. Sev-

eral times we have been able to make a couple of trips a day and with mileage of around 100 miles or less. The first year we had the loader we estimated it paid for itself several times over because I could make moves where honey is available.

Next we used the loaders for requeening and dividing. We try to requeen every year and we make up two to three hundred nuclei the latter part of July or August. Lifting off the honey crop to make them and to find the queen is a breeze with a loader. Many times I work a hundred colonies a day with a minimum amount of labor. Stinging is a bare minimum as all the bees that are in the top supers are left there without being disturbed.

Next, a big labor saving comes with the loading of honey in the yards. We use pallets to set supers on, each one holding 5 full depth supers. We go to the yard using acid cloths, set the honey off on the pallets and then load. Weather permitting, one man can remove 200 supers of heavy honey in four hours.

We generally use two men when taking off honey as we can remove the crop from a 50 to 60 colony yard before the bees find out we are there. We keep robbing to a bare minimum. We give the loader a real workout during the crop year.

About the only time we do not use it is in supering.

I do not want to confuse anyone into thinking that all one has to do is buy a loader and the work will get done. Getting acquainted with this equipment can be very distracting and we find it requires time to be able to get the most from it. I have known beekeepers who have used the loader a short time to be convinced they are no good. But with some gentle persuasion they have found them to be indispensable.

I do not understand why a beekeeper with 300 colonies or more does not look into the possibilities of a loader. Any beekeeper with a little ingenuity and a thousand dollars can become the happiest man in his profession with one of these labor saving devices. It can make the difference between profit and enjoyment by letting the bees get you down. We have different types of Kelly loaders and find them to be rugged and I have not spent a cent on repairs. We did break a couple of drum cables but it was our fault. We are using a 12 volt system and like it. A charger is a necessity for local operations. After a few days' work, we merely plug our charger in and overnight the batteries are ready to go again. It pays to buy the best and largest battery, then the power supply is always adequate.