Beekeepers Annual Activity Calendar for Northern Utah

Remember that weather is the ultimate calendar when taking care of bees. Depending on the weather and also the type of bees you have, the time frame for activities should be adjusted earlier or later as necessary. You will have more success adapting to the bee's schedule, not yours.

Beekeepers are many and varied; some choose a hands off approach, while some are very hands on. Some choose to medicate and others are using other IPM methods which do not include medication. Whatever your preference, you can and should adapt this calendar to fit your needs. There are many local beekeepers and equipment suppliers who are happy to help answer your questions and provide other guidance if you ask.
That said, hopefully this guide will be helpful. Thank you for keeping bees.

Time estimates do not include equipment repair and cleaning or honey extraction.

January

The Bees: The bees really aren't doing much this month other than keeping warm and staying alive. They are in a tight cluster but will move around when temperatures are above 40F. When they do move, it is to go as a cluster to a new area of the hive with honey stores or to take cleansing flights. The cluster may cover 4-8 frames from top to bottom.

During January, the bees may consume 1 to 2 pounds of honey per day to maintain the hive's temperature. Many bees die during the winter just from old age, so you will notice more dead bees around your hives. This is normal.

The Beekeeper: Estimated time needed: Less than 1 hour.
January is a slow month for the beekeeper, however there are certain tasks that will need attention.

Normally the hive is not opened during this time, the bees are just doing their thing. In rare cases when food supply is feared to be low (low going into winter), you may want to take advantage of a **nice day with no wind** when the bees are taking cleansing flights to take a **quick peek** inside. Don't remove any frames, just look under the cover and try to determine cluster position and size. The bees should be loosely clustered, and during this month they may appear in the upper part of the hive. Look for sealed honey stores, if they seem low or absent you may want to consider emergency feeding.

If emergency feeding is begun you must continue until spring when there is good nectar and pollen flows. Do use honey frames, a winter patty or other sources (such as soaking a sponge in heavy sugar syrup.)

- Order bees, nukes and other equipment and supplies for the coming year.
- Check entrance for blockage.

- Spend time cleaning smoker and repairing any damaged hive components.

Anticipate your upcoming needs; playing catch up once the season has begun is not a good way to begin.

February

The Bees: Basically the same as January, but towards the end of the month some increased activity may become apparent. Cluster will be in the top brood chamber this month.

- Check entrance for blockage.
- The queen **may** start to lay eggs in a small grouping late in this month if temperatures moderate sufficiently. It will be small and in the center of the cluster but will grow as the season progresses. **The size of the brood cluster depends directly on temperature; as it gets warmer**, the bees inside the hive are able to move around and utilize their honey stores. During late February the bees may consume 1 to 2 pounds per day.

The Beekeeper: Estimated time needed: 1 hour.

- Check entrance for blockage.
- Another fairly slow month for the beekeeper unless a lot of equipment repair is needed. Identify your needs for the upcoming season - how many supers, frames, bee packages etc will you need to meet your needs? Order with plenty of time to pick up, assemble and paint your new equipment.
- Make sure the hives have enough honey to survive until spring. Either carefully lift the hive and see if it feels heavy, or quickly check the hive on a warm & calm day when the bees are flying.
- Do not remove any frames.
- Start emergency feeding if necessary. Once started, continue feeding until spring when there are good nectar sources. You might also consider placing a pollen patty on top of upper brood chamber.

March

The Bees: This is the month that the bees can die of starvation if food supplies were low going into winter.

- Brood rearing will begin in earnest and be quite noticeable by month's end.
- The bees will begin flying this month and could find some nectar and pollen supplies, however it won't be nearly enough. They can consume up to 3 pounds of food per day, so feed as needed.

The Beekeeper: Estimated time needed: 2 hours.

- Check entrance for blockage.
- Finish any last minute preparations, and recheck plans for new colonies, re-queening or other related up front operations. Now is the time to re-evaluate your honey supers and make sure they are ready for the upcoming year.

- On a **calm** and **warm** (about 55 degrees) day when the bees are actively flying, open the hive to check the status of the colony.

- Check that the hive is queen right - are there eggs in the brood chamber? Do you need to combine weak colonies?

- Keep in mind, with cooler temperatures and limited or no nectar, the bees might be more aggressive.

-Feed pollen substitutes for rapid hive growth

-If feeding has begun, continue. Otherwise check hive weight/honey stores and feed if necessary. Remember cold windy March weather makes for no or very limited nectar collection. Spring Sugar Syrup is a **1:1 ratio**.

April

The Bees: The bees are raising brood in preparation for the coming year. As the month progresses more and more pollen and nectar sources become available. Dandelions, willows, fruit trees, maples and some berries will begin blooming and are the major sources of pollen and nectar.

The Beekeeper: Estimated time needed: 3+ hours.

- Feed Feed Feed, that includes pollen patties, sugar syrup with Honey Bee Healthy or other food supplement containing essential oils. Continue feeding until they no longer take your offering.

- Later in the month check your hives on a warm day for brood pattern, signs of diseases and overall health. If diseases or parasites are found, take necessary action to treat using whatever methods you are comfortable with.

- Comprehensive inspection and spring cleaning time is here, weather permitting, reverse the brood supers. However, if the colony and brood are strong (covering both boxes), then one should probably not reverse boxes as this will split the brood area.

- Clean the bottom board whether you reverse boxes or not.

Note: Depending on the weather all of the above may need to be delayed until early May.

- You may want to set up swarm capture traps and have swarm retrieval equipment ready. Toward the end of the month, be especially mindful of swarming. Provide more room if necessary and or consider splitting the hive. In extreme overcrowding (very strong colony) checkerboarding may be an option worth considering.

- Watch for swarm cells, if present you may try removing them but chances are the bees will still swarm when cells are present.

- Remove mouse guard.

- If you're starting new this year, make sure all of your equipment is assembled and painted. You should have at least one deep brood box and frames ready, along with a bottom board, inner cover, outer cover and feeding mechanism and supplies for when packages arrive. If you don't, DO IT now.

- Install new packages of bees.

May

Red Alert: Major Swarming Month.

The Bees: The hive population is expanding quickly; overwintered hives may reach 80% of full strength by mid-May. The Queen will be approaching her maximum rate of egg laying. New hives will be building comb as fast as they can. Established hives will be busy collecting nectar and pollen. Nectar and pollen will be abundant.

The Beekeeper: Estimated time needed: 4-5 hours.

- If not completed last month, a good spring cleaning is needed as soon as possible. Clean bottom board, reverse and inspect brood boxes, clean up burr comb, etc.
- Look for queen activity and evaluate brood pattern.
- Continue feeding until they stop taking it or until you install honey supers. This is especially important for new hives as they are building comb and raising brood with every available resource.
- Be aware of swarm indicators and control protocols. For existing hives, it is critical that you monitor and add supers as needed; otherwise, your hive may swarm if it is strong and growing. When inspecting, look for swarm cells on the bottom of frames. Remove them if you can, but your best option is to monitor and add supers **before** they feel congested and start making swarm preparations.
- Also check your ventilation, as inadequate ventilation (too hot) can lead to swarming.
- Consider some form of checker boarding if hive is very congested.
- Start monitoring for Varroa mites and treat if needed **before** putting on honey supers. With some treatments, such as Mite Away Quick Strips, it is OK to have honey supers in place when treating. Non-chemical IPM methods can be used anytime. Consider drone frames and powdered sugar dusting. (If using drone frames don't forget to remove and freeze them every 21 days or else you will greatly increase your varroa mite population.) If you treat for AFB, EFB, and Nosema, follow instructions carefully and have treatments completed before installing honey supers as per product instructions. Newly established hives probably will not need any treatments the first spring.
- Check new hives every week to 10 days to ensure that the queen is laying and you have good brood pattern.
- For existing hives, honey super may be needed this month. Even new packages should have the second brood box on by the end of the month.

June

The Bees: Colonies which did not swarm will be busting at the seams. Peak colony population occurs this month and hopefully coincides with the season's major honey flow,

which begins this month and continues into July. Depending on the season it could continue through July. Queen egg laying will be at its peak and the hive will be bursting with activity. Some bearding may appear on hot days and some bees may even spend the night outside, clinging to the front of the hive if it is very warm.

The Beekeeper: Estimated time needed: 4-5 hours.

- Watch the honey flow and ensure that bees have plenty of room to grow and store honey.

Swarming is still a possibility. Add honey supers as needed to prevent swarming and to provide space. When adding supers, don't add too many too soon or they may not completely fill them (remember to reverse honey supers when adding new ones).

- Check hive to determine brood pattern, presence of queen and hive health. Re-queen if needed.
- Make sure you have enough honey supers and frames to last through the summer.
- Monitor for varroa mites.
- Provide adequate ventilation and keep the hives cool.
- Provide shade during the hottest part of the day.
- Stagger the supers slightly to increase air flow and/or provide a screened inner cover (transport cover) in place of standard inner cover. One can also space the inner cover up off the top super a little (not too much or they may make burr comb).
- Make sure **fresh water** is available at all times. This also helps maintain good neighbors as your bees will not be gathering water from their leaking faucet.
- Bore 3/4" holes into some honey supers. They can be plugged when not used for ventilation and additional entrances during honey flow.

July

The Bees: The bees will be very busy again this month. (Much like June) The population of strong hives should peak about mid July. Weaker hives may need to be combined or re-queened as winter survival requires strong colonies. Nectar flow may continue all month **IF** the weather is good. However usually we get a slow down (dearth) as the month progresses. When weather is hot, large numbers of bees will be cooling themselves on the hive's exterior.

The Beekeeper: Estimated time needed: 2-3 hours.

- Provide a supply of fresh water that is located close by.
- Continue inspections for varroa mites and brood patterns. Bee health should be a major concern.
- Continue to watch your hives for late swarms; although most swarming behavior stops in late June, however some hives may swarm late.
- Keep an open eye for robbing wasps, hornets, and other honey bees. During the summer there may be a dearth (period of no nectar flow) that causes them to look for weak hives to rob.

- Make sure your hives have some shade during the hottest part of the day so that they can cool the hive effectively. Too much heat can cause the bees to spend more time cooling the hive than gathering nectar to make honey.

- Consider using screened transportation inner covers in place of the standard inner cover. This will provide better circulation and help to keep the bees cool.

- Add supers as needed to alleviate crowding and to encourage the bees to store more honey than they need.

- Check for surplus honey and harvest honey if needed.

Some indicators of nectar flows are:

Fresh white wax on comb and top bars
Bees are easy to work with.
Foundation is drawn out quickly.
Bees fanning at the entrance.
Large amounts of nectar ripening in the honey supers.
Knowledge of nectar plants in your area and their bloom cycle will aid the beekeeper in anticipating flow times.

August

The Bees: Bees will be busy again this month. The colony is now at or just past its peak population. You will probably notice bees bearding up on the front entrance of the hive in the evenings. This simply is the bees'way of cooling on these hot summer days. The bees are still very busy, however nectar and pollen are in shorter supply than in the previous months. They may become more flighty in search for nectar and pollen. The queen will begin laying eggs for winter bees beginning late this month. The mite population will probably be high at this time (in 2nd year colonies). Bees may be fighting at front entrance, a sure sign of robbing.

The Beekeeper: Estimated time needed: 1-2 hours.

- Swarming was essentially over in July, but by now you can relax as it is over.

- Provide a supply of fresh water that is located near by.

- Continue monitoring brood patterns and queen activity.

- Keep a watchful eye for any problems in the hive: mites, weak hive, and diseases and parasites.

- If needed, and it probably will be, treat for mites using approved methods for when honey supers are in place. Once all honey supers have been removed several other treatment options are available.

- A secondary nectar flow could begin later this month as fall flowers start to bloom.

- Bearding may be an indication of inadequate ventilation or a lack of room in the hive. Try adding a super (there is still time to fill it up) and increasing ventilation by propping the cover up about a 1/4" or installing a screened moving inner cover.

- Watch for robbing activity from other bees or wasps. The end of summer is when other, stronger hives or wasps/hornets will attempt to steal honey from weaker

hives. If necessary, reduce the entrance of the hive being robbed to help them defend the hive more easily.

- Set out wasp and yellow jacket traps (July, August, and September).

Late August is when the queen starts laying eggs which will be the winter bees. Ensure a strong winter colony by checking the honey stores starting at the end of this month; there should be plenty of honey in the brood boxes. Remember that a strong hive going into winter increases the chances for winter survival.
Now is the time to ensure that your bees will have enough room to last the summer, but not too much or they won't fill the supers before final harvest time.

- Follow the rule of 7/10: if 7 of the 10 frames are fully capped, add another super if it's early in the month. However if it is late in the month, don't add supers; this will force the bees to start back filling the upper brood box with winter supplies. This will approximately coincide with the beginning of a second (but smaller) nectar flow which will help supply pollen and nectar for winter stores. Fall blooming plants such as aster, golden rod, sunflowers and others will enable the bees to cap off their winter reserves.

September

The Bees: The population of the hive is shrinking as the queen continues to slow her egg-laying.

Drones are starting to be removed from the hives to conserve winter stores. Nectar and pollen sources are becoming more scarce as the cooler weather moves in and plants begin to die or go dormant. Look to aster, goldenrod, sunflowers and other late blooming plants. The worker bees will begin to bring in large amounts of propolis to seal the hive against drafts for the winter. Bees will be more aggressive and irritable due to robbing, lack of nectar, and cooling weather. On cold nights they will begin to cluster inside the hive. There may be intense robbing activity, so if you have a weak hive in your apiary, take steps to equalize colonies or prevent robbing.

The Beekeeper: Estimated time needed: 3+ hours.

- Provide a supply of fresh water that is close by.
- You should be pulling off all remaining honey supers and be either securely storing them or extracting them. I like to have all my honey supers removed by the second week in September.
- Check your hive for honey stores; if the hive does not feel heavy or the bottom brood supers are not (75- 80%) full of honey consider feeding sugar syrup (2:1 sugar to water+Honey Bee Healthy/similar).
- Once started, continue feeding until they stop taking it or slow down considerably. Then remove any left over sugar syrup from the hive so as not to increase problems due to condensation.
- A**fter honey supers are removed**, treat for mites - both tracheal and varroa - if necessary. This is the best time as the colony is going to be broodless and any mites present will be exposed to your removal method. Consider adding grease patties.
- Also treat for diseases such as foulbrood or nosema.

- Extract your honey if not already completed earlier. Cold honey is much harder to extract. Ideal extraction temperature is about 75-80 degrees.

October

The Bees: The bees are gathering the last bits of nectar and pollen they can find. They are also busy gathering propolis to seal the hive against drafts in preparation for the upcoming winter. Drones are being removed from the hive and the overall colony population is decreasing. A few drones may be retained throughout the winter for reasons not completely understood. You could see them flying on warm days and this is not a concern. If, however, there are large numbers (of drones) you could have a drone laying queen or laying worker bees. (??)

The Beekeeper: Estimated time needed: 2-3 hours.

Although your work load is lessening, the work you do this month is critical.

- Add a mouse guard. Recommended even if you don't think you have mice.
- Verify honey stores, 70-80 pounds are needed to get each hive through the winter.
- Check your hive by carefully lifting from the back of the hive. If the hive feels heavy and you can barely move it, you should have enough honey. A light hive is a problem and you should feed the bees (2:1 sugar to water ratio) or you'll risk loss of this hive due to starvation.
- Continue to feed until they stop taking it.
- Add a windbreak depending on where hives are located, especially if winter winds are prevalent. Ensure that the bees have adequate ventilation at both bottom and top of the hive so moisture produced during metabolism can escape. Moisture condensation dripping onto bees is a sure way to lose them.
- Elevate the rear of the hive slightly so any moisture that does form will migrate to the front of the hive and then downward, so as not to drip onto the bees. Wet bees are dead bees.
- Excess moisture can also cause mildew/molding, sour honey, and give the bees dysentery (nosema).

November

The Bees: If the queen has not already stopped laying eggs, she will this month. The bees begin forming their cluster for the winter. Any flights are mainly cleansing. At this time almost all of the drones in the hive have been kicked out. A small population may remain but it is more likely that all have been eliminated from the hive since drones are a drain on winter resources.

The Beekeeper: Estimated time needed: 1-2 hours.

- Wrap the hives and consider adding an insulated inner cover to reduce or prevent moisture condensation.

- On a warm day remove any remaining medications and liquid food.
- This is the time of year when mice will try to enter the hive, check that your entrance reducers are on properly.
- If you have any reservations about the food stores in a hive you may consider placing some winter patties or other non-liquid food supply on the top bars.
- Check that your hives have adequate ventilation so moisture can be vented; excess moisture can seriously harm your bees.
- Review the past year, see where you could have improved as a beekeeper and work toward those goal. If anything went wrong, determine what happened and how can it be corrected.
- Take a well deserved rest and enjoy the upcoming holidays.

December

The Bees: The queen's egg laying has completely stopped this month. The bees have formed their winter cluster. Any flight activity will be cleansing flights. At this point all or almost all of the drones in the hive have been kicked out. Bees are in "survive the winter"mode.

The Beekeeper: Estimated time needed: 0-1 hours.
There is not much to be done for the bees at this time.
- Remove any snow that blocks the entrance.
- Check entrance reducer (mouse guard) is in place.
- Check the hives periodically for entrance blockage. This includes removing any build up of dead bees that may be blocking the entrance.
- Maintain good ventilation.
- Catch up on reading, plan for and look forward to the upcoming fantastic year.
- Take a break and enjoy the holidays.