

United Beekeepers of Alberta Council (Newsletter 6) - July 2018

What to expect in August

By late-July, you've harvested some honey. But you're hoping for more. The first cut of hay has been baled, canola is fading, but you still expect more honey. It's not yet August, so you're probably right. How optimistic can you be?

Over the years, I've kept a few hives on scales, weighing colonies each evening for nine years. That was in the southern prairies. Meanwhile, a close friend kept a scale hive going in the parklands, at the northern edge of farming, for seventeen years. These are quite different areas, but there are some similarities in production. During June and September, the scale hives usually gained a little weight – on average, about 20 pounds in June; 10 in September. July was almost always the best month, but occasionally, in both locations, August produced the biggest part of the crop. Here's a chart with the actual numbers, averaged over the years:

	Southern Prairies		Northern Parkland	
	Pounds	Percent	Pounds	Percent
July	147	64%	192	72%
August	82	36%	74	28%

From these data, you might expect between two-thirds and three-quarters of your crop to arrive in July. Between the two locations, north and south, I have 26 years of records. Only three times was a bigger part of the crop gathered during August. You might extract most of your honey in August, but a lot of that was produced during July. Using a scale hive, you can actually tell when the bees gathered it – mostly, in July.

How you use this information depends on your management goals. **If you don't like to feed bees for winter, then you must start to reduce the number of honey boxes significantly in**

early August, forcing more honey into the brood nest and leaving more stores for winter. If you are concerned about wintering your hives on canola and/or fall honey and want to maximize your crop, then keep the supers piled on.

Of course, there's only one place to put honey supers if you want the bees to fill them – and that's not in a corner of the shed. If the flow ends on August 10th, as sometimes happens, it doesn't take much energy to haul empties back to the shop. If the flow continues strongly, the extra space helps **keep the brood nest open for the queen to lay late-summer eggs. That brood will become the bees you'll see next April.**

Many Alberta beekeepers remember September 2007 when second-bloom alfalfa, good moisture, and hot weather gave an enormous late flow. We raced around in mid-September, sticking three completely empty drawn frames into the middle of each brood nest to give the queen room. **Folks who wintered with plugged brood nests lost their bees.**

Besides preventing a jammed brood nest during August, extra supers inspire the bees to collect more nectar. If honey supers are more than 80% full, bees slow down gathering, even if nectar is abundant. If you stack a bunch of empties on the hive, the bees keep working hard if the weather and flowers cooperate.

One of the legendary beekeepers of western Canada, Don Peer, a Nipawin beekeeper with an entomology PhD, once told us at a bee meeting, "If I were king of the world, I'd make a law that every beekeeper had to own one more super for each hive of bees." Bees need comb space to hold wet nectar. Dr Peer was astonishingly successful. At first, he ran two-queen colonies from packages. According to Dr Eva Crane (from her book *Making a Beeline*), Don Peer's hives

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made up to 40 pounds a day. I saw his outfit and stood on the back of a truck to reach the top supers. Such tall hives made him switch back to single-queen hives, but even then he stacked supers as high as he could reach. "Bees need space," he said.

As August approaches, keep in mind that the bees might yet store a hundred pounds. If you are trying to maximize your honey crop, the hives still need three, four, or five medium supers. But watch the weather. **When the flow ends, remove those boxes as quickly as you can and start your fall chores.**

Ron Miksha
Calgary
badbeekeepingblog.com
"Individual results may vary."

A Bee in the Ear

On July 12th, a bee crawled into my ear while I was grafting larvae to create queen cells. This also happened in my first year of beekeeping 24 years ago. The first episode was more dramatic. I was a beginner beekeeper installing 21 nucs without experienced help. The nucs had been bought in the Calgary area and I tried to install them in a Lac St. Anne location at 10 pm the same day. Many bees had escaped from the cardboard nucs during the journey in my minivan, such that I had my wife and preteen daughter get dressed in bee suits for most of the journey. Not surprisingly, we got strange looks from passengers in vehicles which passed us, as bees were in clumps in the corners of windows.

I should have just left the nucs with small openings at Lac St. Anne and gone home, to return the next day when the bees would be calmer, but I wanted to avoid a second 90 minute round trip from St. Albert. While I was

installing bees into regular sized bee boxes, my daughter was stung, became terrified and lost her enthusiasm for beekeeping after that. Wearing a bee suit with the helmet separate from the uniform, I noticed some of the bees were crawling around my head and a few got under the veil and one got into an ear.

In my stubbornness, I completed installing while I became worried that the bee may crawl down to my eardrum and cause damage to my hearing. At midnight when I got home, I was unsure if the bee was in the ear. I felt no pain and nothing seemed to be moving in the ear. I decided not to go straight to the Sturgeon Hospital Emergency as that could have meant my sitting around for 4 hours with obnoxious drunks and other people involved in accidents. I would have been last on the priority list. I decided to go in at 6 am when nobody would be in emergency. Within 10 minutes of my arriving, a doctor removed the dead bee with a pair of tweezers. The wax in my ear had prevented the bee going in very far and probably caused its death.

In the more recent incident, I was showing a few students from the winter beekeeper course how to graft worker bee larvae such that workers would add extra royal jelly after to create queen bee cells. We were about 5 yards from 30 hives, working from the back of the pickup truck. I unzipped the hood of my one piece bee suit to get a clearer view of the larvae to graft. I assumed the few bees close by were nurse bees who wouldn't bother us. When I zipped up the veil, I realized a bee was part way into my right ear. I felt embarrassed and a bad example to the students but it was a worthwhile learning experience I thought later.

No one had any tweezers, so I decided to go to the hospital emergency. When I got away from the beeyard, I was able to pull out the bee with

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my fingers. It hadn't gone in as far as the bee in the first episode. On July 19th, we grafted again in the same location and in the same manner. This time when I unzipped the hood, I kept it over my ears. Two of the students had brought tweezers with them this time just in case.

Submitted by Malcolm Connell

www.honeybeeworld.com/diary This diary has great photos, commentary and an index of topics is a great resource for all beekeepers: commercial, sideliners and hobbyist. This has been compiled by Allen Dick of Swalwell, AB since 2002.

www.stemplerhoneyfarms.com Ian Stepler is a commercial beekeeper from Manitoba. His blog includes videos of beekeeping tasks with clear explanations.

<https://badbeekeepingblog.com>. This blog is written by Ron Miksha, who is a past president and current member of Calgary and District Beekeepers.

Calgary – The next Bees and Beers will be held on Aug. 8 at the Forest Lawn Legion starting at 7 pm. For more details of events in Calgary, www.calgarybeekeepers.com.

Edmonton - the next meeting of the EDDBA is Thursday 6:00pm-8pm. August 23rd (note earlier meeting time in August) location to be announced. Check website www.edmontonbeekeepers.ca

Red Deer - www.reddeerbees.ca

Queen bees for sale Contact Vivian at butzhurn@gmail.com, 780-542-5507.

She is located in Carnwood, near Drayton Valley.

The purpose of the United Beekeepers of Alberta Council (UBAC) is to be a provincial

advocate for all beekeeping operations: large and small. Visit us at

www.albertabeekeepers.com

United Beekeepers of Alberta Council – First AGM and Conference

The first conference of the United Beekeepers of Alberta Council will be held on Saturday, September 29th at the Parkdale Community Centre in Calgary NW. This day conference and AGM will include speakers from a variety of fields including researchers, government representatives and fellow beekeepers. Time will also be set aside for attendees to engage in conversation with other members of the beekeeping community and to visit booths provided by beekeeping supply companies. It will also include a honey contest. People interested in helping with the conference can contact Liz Goldie at liz.goldie@shaw.ca.

To submit future newsletter articles or make suggestions, contact connellmjm@hotmail.com

Beaverlodge Field Day Module 'Queen Bee Health'

At the Beekeepers' Field Day in Beaverlodge (June 22), Michael Peirson demonstrated a simple technique that can be used to assess a colony's 'sealed brood pattern' as an indication of queen quality. A queen bee will normally begin laying eggs near the centre of a frame and will move outwards, laying an egg in nearly every cell. Thus, if the hive is healthy, and the queen is performing well, frames should contain cell after cell of uniform aged brood with few gaps. But this is not always the case. Sealed brood may be mixed with

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empty cells, eggs, nectar, etc. This can reflect damage to the queen, food shortage, disease, or inbreeding, among other things. The cause may not be obvious, but a poor brood pattern is a clear indicator that *something* is wrong with the queen or its hive.

The method we use to assess brood pattern is simple. A cut-out 10 cells x 10 cells (total 100 cells) is laid on a typical area of sealed brood (ie not an area with emerging bees nor larvae that are just being capped) and the number of cells that are sealed is counted (see photos). We do this on four different frame sides and average the result to get the sealed brood percentage for the colony.

One of the many causes of poor brood pattern was examined in a recent experiment led by Marta Guarna. Queens in transit may be exposed to high or low temperatures before they are placed in a hive. Two groups of queens were compared; control queens kept at 25 °C, and temperature-treated queens kept at 4 °C and 42 °C. In the control queens, most of the sperm remained viable; they produced fertilized eggs and the brood pattern score was usually above 85%. In the stressed queens, only about 60% of the sperm was viable, meaning the queen would have trouble laying fertilized eggs, and the brood pattern score was extremely variable. Surprisingly, the bees did not seem to recognize the problem as they did not replace their queens that summer. The exact same number of queens survived the summer in both groups. However,

the temperature-treated group produced far less honey and was far more likely to die during winter.

What should you do if your hive has a poor brood pattern? First, examine the hive closely. Could they be short of food? Could brood be dying of disease or Varroa? Honeybees can be hygienic; they remove dying brood. If you find even a single sick individual, probably there were more. Finally, if the queen is part of the problem, you should replace her.

Submitted by Michael Peirson and Marta Guarna, Agriculture and Agri-food Canada. Photos by Marta Guarna.

