

# Running Singles



So let me start by introducing myself. I recently saw a speaker do this by identifying the advantages that he had on his farm to give the audience context. I liked it but I'm also going to identify some disadvantages. Many of these, you will have too, but I think it is important so that you can identify whether or not what I'm doing is even possible in your context.

# Introduction

## Advantages

- Full-time
- Raise own queens
- Isolated
- Pick of Yard Locations
- Area that produces honey
  - Periods of no robbing
  - Long days/cool nights
  - Canola/Caragana



- Winter

## Disadvantages

- Winter
- Canola
- Isolated



## Advantages

5<sup>th</sup> generation beekeeper who does it full time so I spend most days every day in hives learning and gaining more experience.

I come from an area between North Battleford and Lloydminster. That means I'm isolated and don't have close beekeeping neighbours which means when I experiment I'll only hurt my own bees and reputation if the experiment doesn't work. It also means that we have the pick of yard locations.

Area of high honey production (more than almost anywhere else in the world and in Canada)

Long daylight hours and cool nights resulting in high nectar secretion so we'll get periods of no robbing

Canola & Caragana – Lots of flowers to produce honey from

Winter – That means I have a brood interruption which provides me a better opportunity to control Varroa, it gleans out poor genetic stock and if it's cold enough it keeps wax moth under control.

## Disadvantages

Winter – It doesn't allow for sloppy beekeeping or weak hives

Canola – I have to extract the honey every 2 weeks so that it doesn't crystalize in the comb.

No close beekeeping neighbours

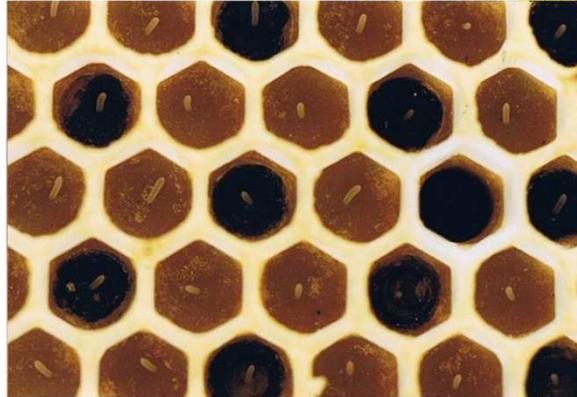
# Biggest Question

6552 cells/comb X 9 combs = 58968 cells

58968 cells

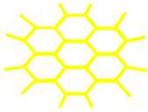
21 days in cell

**= 2808 eggs/day**



The first question is always whether there is room for the queen to lay in a single so let's get that out of the way. A standard comb is approximately 78 worker cells wide by 42 worker cells deep on each side of the comb. In our singles we have 9 combs.  $78 \text{ cells} \times 42 \text{ cells} \times 2 \text{ sides} \times 9 \text{ combs} = 58968 \text{ cells}$  Each new worker occupies a cell 21 days from the day that the egg is layed until the adult hatches.  $58968 \text{ cells} / 21 \text{ days} = 2808$  A queen would need to lay 2808 eggs per day to fill up the single with brood. While she might be able to do that for a very short time, she cannot sustain that. So, yes there is enough room for a queen to lay eggs.

# Singles ≠ Half Doubles



Back to singles – Singles are not half of doubles. My only experience with doubles was one year where I bought into the belief that doubles had more brood and therefore would be easier to make up more splits. I convinced the guys to try running a few doubles in a yard. One of the management tools that we use is counting brood. We are not so precise as to use a grid like Graham and Lloyd would use, but we do keep a running tally in our head as we go through a hive so that we can use it to determine if the queen is increasing her laying or not. If she stalls out, she's on her way out. What that showed us between the doubles vs. singles is that the singles actually consistently had more brood than the doubles that we ran. That was the end of my experience with doubles.

So, I said singles are not half doubles and that means that you can't run them like half doubles. I've seen a few researchers who try and prove that singles aren't as good or don't work and consistently, the problem with their methodology is that they try to use doubles management styles on singles. Some things you can mix and match, but some you cannot.



#### 4 Management Techniques – Mandatory

1. Queen excluders
2. Cull Crappy Combs
3. Use winter stores
4. Super early



There are 4 management techniques that are not optional.

You cannot run singles without queen excluders. Queens will lay eggs in as many boxes as they want if there is no queen excluder and a single allows no buffer room. Stripping brood off while you strip honey off will harm the strength of your hive. If you're not using excluders, you're not running singles.

There also isn't room for crappy combs. Every patch of drone cell decreases the number of cells in the brood nest and since they need every cell for workers and pollen storage, which they don't like to do in drone cell, you have to cull drone combs. The other advantage to this is that drone cell ramps up the exponential curve of Varroa mite production and so culling it should slow their increase.

That means though that there isn't room for unused combs of crystalized honey in the brood chamber. In the spring when they are converting all their honey into brood, that includes all the honey in the brood chamber. So, one of the things that we do is move a comb of crystalized honey into the middle of the brood chamber to make them rework it. If they aren't using it can also be a sign of a queen that needs to be replaced.

Must put on honey supers earlier to prevent jamming brood nest with honey and to prevent swarming. Don't put them on too soon because that means more area to keep warm and it knocks them back. Supering usually prompts us to unwrap and we must finish treating earlier.

# Advantages of Singles

- ½ the equipment for brood nests
  - Look for queen
  - Cost
  - Cleaning wax



## Advantages of singles

Half the equipment for brood nests (DOES NOT MEAN FEWER HONEY SUPERS)

Fewer combs to look for a queen

Cost of brood equipment

Fewer combs to clean in the spring whether deadout or live

Hive not as high

Easier and cheaper to treat: don't have to separate boxes to put treatment in each box

Easier to check in the spring: What you see is what you've got

More brood because not tempted to fill up brood nest with honey

Less room to keep warm so use less feed

Easier to shovel snow on them

Easier to move hives when needed

Cheaper to feed?

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- Easier and cheaper to treat
- More brood



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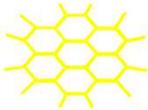
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Cheaper to feed?

# Advantages of Singles



- Easy spring check
- Winters better
- Less space to keep warm = less feed
- Easier shoveling snow
- Easier moving hives
- Cheaper to feed?



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# Disadvantages of Singles

- No room for error
  - No cull combs
  - Stay on top of feed
  - Small treatment window
  - No year round frame feeder
- Unwrap sooner
- No traditional “splits”



## Disadvantage

This one is difficult for me to access because I don't have experience with doubles

Need to unwrap colonies sooner than we might like to put on honey supers.

No room for sloppy beekeeping

Have to cull combs

If you're using stock that isn't frugal, so for example it comes from a climate without winters, you need to check feed on them early in the spring

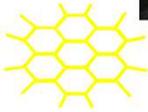
Honey supers need to go on early so there often isn't the temperature needed to use the organic Varroa controls before the honey supers need to be put on or there may not be the time for synthetics (no sloppy beekeeping)

Can't leave a frame feeder in year round, but since we don't like those for finding queens I don't know if that's a fair disadvantage. It might instead fit under no room for sloppy beekeeping.

Can't do traditional “splits”

One strong hive better than 2 week ones.

## Proceed with caution



Experiment with a few. When my Grandfather got his first hives in Canada, he bought 2 packages. One swarmed and so he had 3 hives going into winter. They were in singles. He wrapped them up in straw and successfully overwintered all 3 hives. However, during that winter, he bought a Canadian beekeeping magazine subscription. Through reading that magazine, he found out that you couldn't overwinter singles in Canada. Bees needed 2 boxes of feed to make it through the winter. After that, he always tried to overwinter his hives as doubles and was never able to successfully overwinter another hive. I subscribe to, "Don't fix what isn't broken." If you have some things that you consider broken in doubles, try a few singles to see if that fixes the problems. Some guys cannot run them because they are so geared to running doubles that they cannot get out of the rut of trying to run singles like doubles. If that is you, singles won't work, stick to doubles.