

Producing Liquid & Comb Honey

Colony evaluation, manipulations, placement,
and other tips
for maximum honey production

“Poorly managed bees on a good location will produce more honey than well-managed bees on a poor location.” C.L. Farrar

- Location, Location, Location
- Spend as much time learning about plants as you do in learning about bees
- ID nectar flow sources in your area and keep records as to when they bloom
- Evaluate the forage in a 1 ½ - 2-mile radius from the hive
- Talk with area beekeepers

Important Nectar sources – Region 10

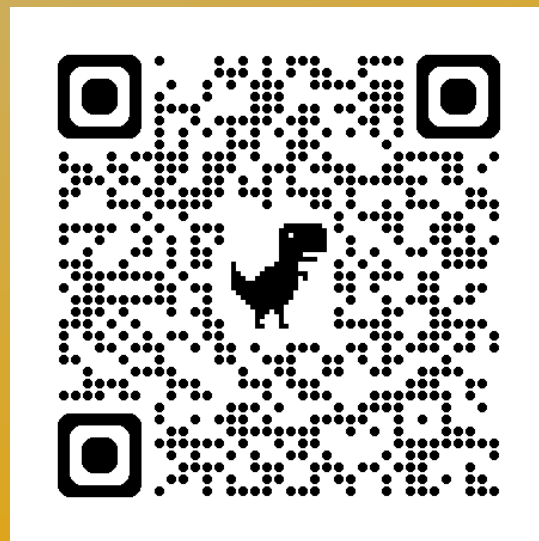
USDA code	Family	Latin Name	Common Name	Plant Type	Begin Bloom Month	End Bloom Month
ULMUS	Ulmaceae	<i>Ulmus</i>	Elm	TDB	2	5
TAOFC	Asteraceae	<i>Taraxacum</i>	Dandelion, blow-balls	F	3	9
ACER	Aceraceae	<i>Acer</i>	maple	TDB	3	5
POPUL	Salicaceae	<i>Populus</i>	Cottonwood, poplar aspen	TDB	3	5
PRPE3	Rosaceae	<i>Prunus persica</i>	Peach	TDB, C	3	5
PYRUS	Rosaceae	<i>Pyrus</i>	Pear	C	4	6
RUBUS	Rosaceae	<i>Rubus</i>	Blackberry	S, C	4	7
ACNE2	Aceraceae	<i>Acer negundo</i>	Box elder, ash-leaved	TDB	4	5
AESCU	Hippocastanaceae	<i>Aesculus</i>	Buckeyes and horse chestnuts	TDB	4	5
CERC12	Fabaceae	<i>Cercis</i>	Redbud, judas tree	TDB	4	5
MALUS	Rosaceae	<i>Malus</i>	Apple	TDB	4	6
PRUNU	Rosaceae	<i>Prunus</i>	Plum (uncultivated)	TDB	4	5
SALIX	Salicaceae	<i>Salix</i>	Willow, osier	TDB	4	6
PRAR3	Rosaceae	<i>Prunus armeniaca</i>	Apricot	TDB, C	4	4
PRAV	Rosaceae	<i>Prunus</i>	Cherry (cultivated)	TDB, C	4	6
CUME	Cucurbitaceae	<i>Cucumis melo</i>	Cantaloupe, muskmelon, casaba,	C	5	8
CUSA4	Cucurbitaceae	<i>Cucumis sativus</i>	cucumber	C	5	9
MESA	Fabaceae	<i>Medicago sativa</i>	Alfalfa, lucerne	C	5	9
ASCLE	Asclepiadaceae	<i>Asclepias</i>	Milkweed, butterfly flower	F	5	8
MELIL	Fabaceae	<i>Mellilotus</i>	Sweet clover (white/yellow)	F	5	10
POLYG4	Polygonaceae	<i>Polygonum</i>	Smartweed, knotweed, fleece flower	F	5	10
TRHY	Fabaceae	<i>Trifolium hybridum</i>	Alsike clover	F	5	9
TRPR2	Fabaceae	<i>Trifolium pratense</i>	Red clover	F	5	9
TRRE3	Fabaceae	<i>Trifolium repens</i>	White, dutch clover	F	5	10
RHUS	Anacardiaceae	<i>Rhus</i>	Sumac, sugar bush, lemonade berry	S	5	8
DIV15	Ebenaceae	<i>Diospyros virginiana</i>	Persimmon, possumwood, date plum	TDB	5	6
ROPS	Fabaceae	<i>Robinia pseudoacacia</i>	Black locust, false acacia, yellow locust	TDB	5	6
TILIA	Tiliaceae	<i>Tilia</i>	Basswood, lime tree, whitewood	TDB	5	7
CUCUR	Cucurbitaceae	<i>Cucurbita L.</i>	Pumpkin, squash, gourd	C	6	8
GLYCI	Fabaceae	<i>Glycine</i>	Soybean, soja bean	C	6	8
SOLID	Asteraceae	<i>Solidago</i>	Goldenrod	F	6	10
SYMPH	Symphoricarpos	<i>Symphoricarpos</i>	Snowberry, wolfberry, waxberry,	F	6	8
ZEMAM2	Poaceae	<i>Zea mays</i>	Corn, maize	C	7	9
AMBRO	Asteraceae	<i>Ambrosia</i>	Ragweed	F	7	10
BIDEN	Asteraceae	<i>Bidens</i>	Spanish needles, beggar-ticks, bur marigold, stick-lights, pitchforks, tickseed	F	7	10
CYLA	Asclepiadaceae	<i>Cynanchum laeve</i>	Blue / honey / sand vine	F	7	8
SOBIA	Poaceae	<i>Sorghum bicolor</i>	Sorghum, broom-corn	F	7	8

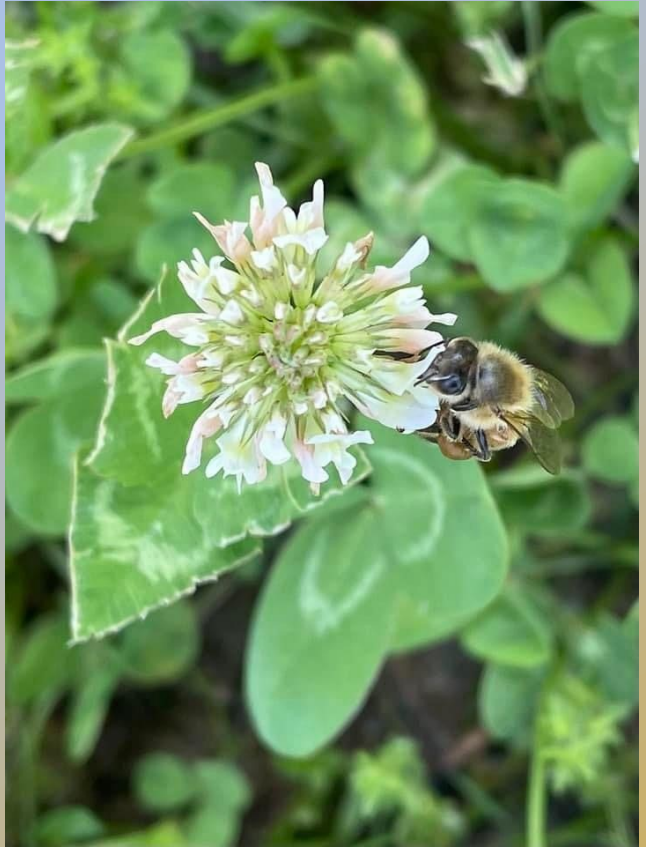
- Honeysuckle (April/May)
- Black Locust (May)
- Dutch & Alsike Clovers (May)
- White/Yellow Sweet clover (biennial) (June)
- Linden (June)
- Soybean (June-Aug)

Plant Type codes:
 T - tree
 TDB - tree, deciduous broadleaf
 TEN - tree, evergreen needleleaf
 TEB - tree, evergreen broadleaf
 S - shrub
 SEB - shrub, evergreen broadleaf
 SDB - shrub, deciduous broadleaf
 V - vine
 VDB - vine, deciduous broadleaf
 G - grass
 F - forb (herbaceous flowering plants, non-woody)
 C - crops/cultivated

Sig column
 This column indicates whether or not the species is considered a very important nectar source species within the state and region selected. If it is a significant source, it is indicated here with a "Y" and the row is highlighted.
 In this context, important is defined by Ayers and Harman as those species that "reliably produce a large percent of the harvested honey" within the selected region.

For those wishing to see more detailed information about any species in the list, please visit the [USDA PLANTS Database](#) web site and search by any of the first three columns from the table.





Colony Considerations

- Manage diseases & pests
- Colony has good nectar/pollen in Spring & Fall
- Feed bees to stimulate expansion
- Divide strong colonies
- Equalize populations
- Control swarming
- Keep young queens in all colonies
- Density of bees/colonies

Equalizing colonies in the Apiary

- Any colony will accept brood frames from any other colony
- Swap positions of strong and weak colonies mid-day while the field force is out
- Exchange the positions with a nuc and a hive preparing to swarm

Bees are programmed to do 3 things:

- Raise brood
- Swarm
- Build comb and store honey

Bees are most efficient when they can focus on only 1 of those 3. Strategies that release the bees from brood rearing at the start of the honey flow maximize honey comb production.

Killion Method

Day 1 – Condense colony down to one hive box and add 1 cut comb super.

Day 4 – Kill or remove queen. Shake frames and remove queen cells.

Day 8 – Shake frames and remove queen cells.

Day 12 – Shake frames and remove queen cells. Introduce new queen or queen cell.



Double Screen Method

- Make a nuc above a double screen and introduce a new queen to the nuc.
- When queen has her own brood, move nuc to parent colony hive stand.
- Shake most of bees from parent colony in front of nuc.
- Distribute extra brood or stack up and requeen to winter colony.



Goals at start of nectar flow

- Large adult bee population (50,000 bees) just prior to nectar flow
- Young queen just starting to lay
- Very little open brood to look after
- Colony with no swarm impulse
- Colony is supered above a queen excluder



Signs of a Flow

- White wax in the supers.
- Bees flying out the hive with purpose.
- Shake nectar out of frames onto shoes

Comb Honey



Why Comb Honey?

- Comb honey is beautiful
- It's in its own packaging
- No concerns of adulteration
- Producing comb honey is an art
- More economical
- Demand is greater than the supply
- Good profit







Tjanting tool (Large)

Wedge Top Bar (6 ¼" frame) & Cut Comb wax foundation (F32301 Dadant)



Considerations in Comb Honey Production

- Pick colony with nice finish
- Supering too early
- Supering too late
- Mark your comb supers/frames
- Don't rotate your frames
- Remove as soon as capped
- Avoid excess smoke
- Avoid excess repellent
- Handle with care
- Cover supers and use drip boards



- Healthy and robust colonies
- Swarm mitigation
- Colony with a young queen/new swarm
- Every colony typically starts with a drawn super or 2 placed above a queen excluder prior to the first nectar flow/cut comb added a start of flow
- Stay ahead of your colony!
- I typically don't apply more than 2 supers of comb honey per colony and where there is less bee density.
- Pull comb honey as soon as it's capped. Extract honey supers in early July.
- Leave a drawn super or 2 on each colony after initial pull until mite treatments in August.
- Swarms typically before May 1 will make a honey crop from both the parent colony and the swarm colony.
- Manage resource nucs in all your yards



July 8 harvest with fume boards



May 12, 2023





May 18 – Pulled 1 gal.
frame feeder and both
boxes were drawn. 2 comb
honey supers added.



May 20 – Drawing
white wax in
comb honey
super.



May 26 – Working on both supers.



June 16 – Cut comb supers being capped, 3rd super of foundation frames added. June 28 - 2 comb honey supers removed.



July 15 – 3rd super drawn and capped. Given a 4th super of drawn comb which they filled.

