

JEFFERSON COUNTY BEEKEEPER ASSOCIATION



JCBA SUMMER NEWSLETTER

SUMMER 2022, VOLUME 10

jeffcobeekeepers.org



Jefferson County Beekeeper Association Group

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jeffcobeekeepers

JEFFERSON COUNTY BEEKEEPER ASSOCIATION LEADERSHIP

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Treasurers	Kip Davis, Teri Dowgiert
Apiary Manager	Kathy Gill

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Pat Donahue Kathy Gill Sarah Jarrell

WRITERS

Pat Donahue Kathy Gill

DESIGN & LAYOUT

Sarah Jarrell

JCBA MONTHLY MEETINGS

When: 2nd Sunday of every month

1:00pm - 3:00pm

Where: Maple Grove Grange Hall
3130 Youngfield St
Wheat Ridge, CO 80215



UPCOMING MEETINGS

June 12

July 10

August 14

MEMBERSHIP

For membership details email
jeffcohoneybee@gmail.com or inquire during one of
the regular meetings.

Membership Dues: \$25.00 per year
JeffCo membership dues include membership to
Colorado State Beekeeper Association.

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EDITOR'S NOTE

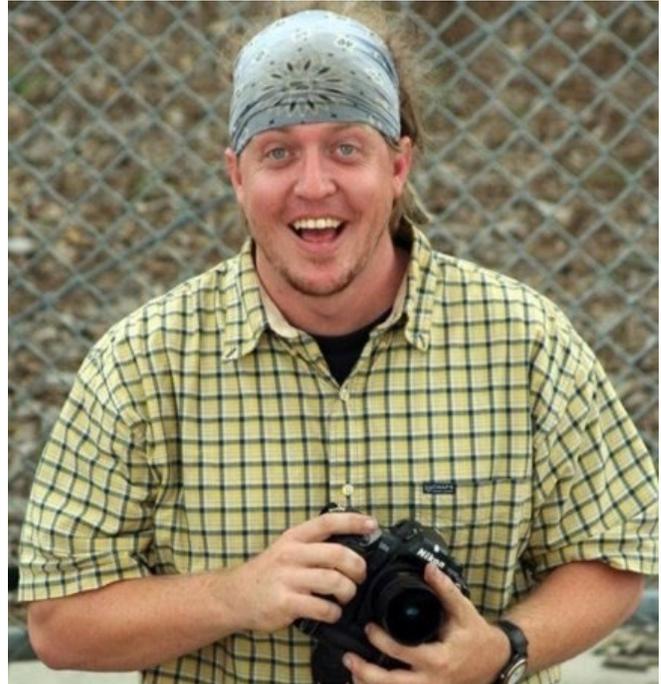
As the seasons change so must we, saying good-bye is never easy. We keep in our minds and hearts those that are at rest. Never to be forgotten.

It is with sadness I say good-bye to a friend, neighbor, journalist, co-editor of JCBA Newsletter.

Eric Peter Skougstad

March 6, 1979 – April 22, 2022

Eric was a journalist writing for several local papers. He was the publisher/editor of "Antiquated" a publication on an exploration of history, artifacts and collecting. He had his certificate in manual machining, and enjoyed lost wax casting, faceting, engraving, woodworking, photography, fly fishing, and bicycling. He was a beekeeper, and Member of Jefferson County Beekeepers' Association where he wrote, co-edited, and created the layout and design for the newsletter. A plaque has been made by Kip Davis in Eric's memory for a tree planted at the Apiary.



NEW VOLUNTEER

A leaf turns, the snow melts, and then a new.....



Welcome Sarah Jarrell who has graciously volunteered to help with the newsletter.

After keeping bees for several years in Florida, she and her husband moved to Colorado. They set up a backyard apiary in Spring 2021. Sarah is excited their hives survived the winter and seem to have stuck around through swarm season. In addition to bees, Sarah cares for 11 chickens and a cat. She enjoys yoga, the great outdoors, and traveling. She looks forward to practicing her German during an upcoming trip.

LAST MEETING NOTES

March 13, 2022 Discussions about Wardles Feed and Supply ramping up their stock of beekeeping supplies. Followed by discussion of who is selling packaged bees. Jessica presented the club's new mentor-mentee program. Kathy and Pat talked about participation in a pollen study. Eric Smith, President of Colorado State Beekeepers Association, did an in-person presentation on splits.

April 10, 2022 Doug opened with comments about the next Apiary Workshop on April 6, 2022. The club will be selling nucs from splits done at the Apiary. He talked about looking at your own hives for signs of swarming. Jessica discussed the Mentor-Mentee program and the upcoming Earth Day Celebration on April 23rd at Heritage Lakewood Belmar Park. The featured speaker was Eric Johnson giving a Swarm Presentation, always informative.

May 8, 2022 Kip gave his experience getting a bee in his veil and what to do. Nucs are ready to be sold. Teri gave her club accounting report. April gave a swarm report. Featured speaker was Lisa Mason, Horticulture Agent for CSU presenting on Native Bees.

COLORADO STATE BEEKEEPERS ASSOCIATION

The CSBA Summer Meeting for 2022 will be held in-person and on Zoom, in Rifle, Colorado on June 10, 11, and 13th. More information to come later.

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 Colorado State Beekeepers Association CSBA

WHAT DO YOU KNOW?

1. Honey Bees can see 5 different colors, ultraviolet, blue, blue-green, yellow, and red. *True or False?*
2. Digestion and absorption of food takes place in the worker's honey stomach. *True or False?*
3. Worker honey bees have _____ wax glands.
A. Eight | B. Four | C. Two | D. Ten | E. Twelve

SEASONAL CALENDAR

JUNE The colonies are building up even through all the storms and rain. Spring flowers are abundant. What is blooming in your yard or Apiary? Is nectar and pollen available?

You should see lots of bees flying in and out of the hive. It's still Swarm Season so watch for swarm cells on the bottom of the frames. Splitting early not only provides swarm management but allows a brood break to help manage varroa.

Nutrition is important. Consider feeding if nectar and pollen is slow to come in, during Colorado's unpredictable spring weather. Once you can put supers on don't feed sugar water. A pollen substitute may just give that extra boost needed for the brood.

You should see different size eggs and larva on the frames. Larvae are pearly white and form a C-shape in the bottom of the cell. The bees will be storing honey and pollen on brood frames besides solid honey frames in the box.

Add supers when there is 6-8 frames of brood and bees in top brood box. This assures the bees have the wax build up to store resources for winter. See next article about wax production. In Colorado it is recommended to have 80-100 pounds of resources for the bees to overwinter in two brood boxes. Sometime

around summer solstice, June 21, 2022, the hive will start decreasing their brood production. For more information about Colony build-up and decline see Randy Oliver's information at <https://scientificbeekeeping.com/?s=Colony+buildup>.

Do your monthly mite check. See the "Tools for Varroa Management" here <https://honeybeehealthcoalition.org/resources/varroa-management/>.

July Hive inspections should be done every 1-2 weeks. Mite monitoring powdered sugar roll, or alcohol wash, and record each month in summer. Colony will continue to decrease their brood area, and start to store more honey and bee bread. Re-queen hive to start next spring with a queen that has overwintered and ready to lay. You can harvest capped honey in the supers if frame is full. After harvesting the honey be sure to save those wet supers and give it back to the bees. July is a time of dearth in some areas of Colorado.

August-Continue 1-2-week hive inspections. Watch for colony population to decrease this is normal. Is there a dearth? Mite populations are rising. Check out the "Tools for varroa Management" here <https://honeybeehealthcoalition.org/resources/varroa-management/>. Continue your mite checks and record. Harvest honey supers and give wet supers back to the colony. Robbing season starts. Protect your hive with robbing screens.

ADVICE FROM A HONEY BEE
Create a buzz, bee yourself, bee kind

WAX HONEYCOMB OF HONEY BEES

By Kathy Gill

Wax production is a major task of the honey bee. She must consume large amounts of food to produce wax. The wax glands become fully developed when workers are 12-18 days old, then 6 days later the glands degenerate. Not a very long time for wax production.

Worker honey bees have 4 pairs (total of 8) of wax glands located between the last four ventral abdominal segments. The wax comes out liquid but hardens or solidifies when it comes in contact with air and solidifies into oval scales. The bee then uses her hind legs to remove the wax scales and passes it to her mandibles where it is kneaded and mixed with a secretion from the mandibular gland to make it pliable. She then constructs the comb warming the wax to more than 109°F to form the perfect architectural hexagonal shape. When you see the bees hanging together in chains, called festooning, you know they are producing comb. Bees use gravity as the stimulus to produce straight comb, so a hive placed on a unlevel location will produce odd, shaped comb.

Fresh wax is a beautiful pristine white. After spending time in the hive, it turns a light yellow then darker and darker because it absorbs pollen stains, propolis stains and dirt from those tiny feet. Beeswax is used and reused in the hive as much as possible, since it requires so much energy to produce. Fresh wax is used to cap cells of honey, small bits are used to repair brood cells, and old wax is mixed with propolis to seal cracks.

Bees only produce wax when there is plenty of nectar around. It can be beneficial for the beekeeper to add foundation to the brood area in spring so the bees will draw out that precious comb giving the queen more room to lay eggs. The beekeeper can save a frame or two of drawn comb in the freezer or a tightly sealed tub, to give back to the hive when a crisis occurs.

A word of caution is to rotate old dark brown comb out of the hive every 2-3 years as it has been proven it can be contaminated with pesticides, old cocoons, and debris from those tiny feet. Because of this the cells become smaller and smaller.

SWARM UPDATE

Thank you! A gigantic THANK YOU from April and Kathy to all the swarm catchers during such a crazy season! Below are just a few of the many swarms captured this year. It has been extraordinary. Thank you to all our swarm catchers for a job well done!

You do us proud!



ANSWERS! WHAT DO YOU KNOW?

1. FALSE. The honey bee can only see four different qualities of color: yellow, blue-green, blue, and ultraviolet. They cannot see red.
2. FALSE. The honey stomach or proventriculus is a temporary storage organ. Digestion and absorption take place in the ventriculus, or true stomach.
3. A. Eight wax glands!

BEAUTIFUL BORAGE

By Pat Donahue

Borage originated from the West Mediterranean and North Africa and is cultivated in a wide range area of Asia including Arab countries. (Husain Ali Mehdi, Taha Y. Al-Edany and Alaa Sabeeh Jabbar)ⁱ. Borage has fuzzy stems and leaves, flowers shaped like a star, and it smells and tastes like a salty cucumber. Borage, otherwise known as “forget-me-nots” and “star flower”ⁱⁱ is an easy to grow herb that is frequently planted in gardens to attract pollinators. It is also planted by gardeners as a “companion plant” to strawberries, tomatoes, and other crops to deter pests (hornworms for tomatoes) and improve the taste of the crop.ⁱⁱⁱ Companion planting is a traditional gardening practice whereby a second flowering plant species is deliberately planted alongside a crop with the aim of improving yield. ([Janine Griffiths-Lee](#), [Elizabeth Nicholls](#), [Dave Goulson](#) May 2, 2020).^{iv}

How To Grow:^v Borage is technically an annual, but it is also a self-seeder and will reappear every year. Borage plants can be planted directly into the garden or into pots after the risk of frost has passed. Borage can thrive in dry, nutrient-poor soils. However, it prefers a moderately moist, well-drained soil. It also can tolerate a wide soil pH range, though it likes a slightly acidic soil. The more sun Borage gets each day, the more flowers it will produce and the stronger its stalk will be. New Borage plants will need to be spaced about 18 to 24 inches apart and watered every few days until they get established. Thereafter, you can let the soil dry out completely between waterings. Because of the fuzzy coating on the leaves and stems pest problems with Borage are rare. However, a powdery mildew can be a problem if Borage is planted in less than favorable conditions. To prevent the mildew from growing on your Borage, water it properly and make sure it has good air flow around it. A nice way to stagger the blooming season of Borage is to space out the times the seeds are planted. Borage will mature in about 8 weeks from planting so if you plant a few seeds every 4 to 6 weeks you will have a constant bloom season of Borage from Spring to Fall. Use caution when deciding how much Borage to plant because it is known to be a bit of an “aggressive” grower.



Borage can also be propagated from seeds or from seedlings that sprout from the mature plants. Seeds can be collected from the flowers of the mature plants when the flowers start to degrade. Simply shake the seeds into an airtight container and save them for the following Spring. Seeds can be started indoors three to four weeks before the last frost or they can be spread over the desired planting site after the last risk of frost has passed. When you start the seeds inside or outside, plant them about ½ inch deep and when the seedlings reach 6 to 8 inches tall, plant them outside if you started them indoors, or thin them to 18 to 24 inches if you planted them outside.

Another propagation method is to dig up the seedlings (volunteers) that sprout around the base of the mature plants. Make sure you dig the seedlings up so the roots remain as intact as possible, transplant them to the desired location in your yard, and water them every few days until they are established. Borage does self-seed so if you don’t want additional volunteers the following spring, deadhead the flowers before they go to seed or pull the plants out in the fall and throw them in your compost pile; they rot easily. Use caution when choosing where to plant Borage because it is toxic to cats, dogs, and horses.^{vi}

Benefits to the Honey Bees: Consuming a diverse source of pollen and nectar is important for the health of the individual honey bee and for the overall health, immunity, and growth of the colony, especially before overwintering. Supplemental feeding as a preparation for winter survival can improve health, making bees less susceptible to disease and pests. In a study conducted by Rhonda Simmons, Ramesh Sagili, and Bruce Martens, Honey bee forager preference of late summer flower species was examined. Six flower species were selected based on potential pollen production and planted according to commercial recommendations. Honey bee visitations were recorded, pollen amount tabulated, and pollen grains separated for protein analysis. Results indicated borage, alsike clover, and buckwheat to be the most preferred species for foragers when compared side by side.^{vii}



The Spruce / Marie Iannotti^{xiv}

In another study conducted by Husain Ali Mehdi, Taha Y. Al-Edany and Alaa Sabeeh Jabbar, at the Department of Plant Protection, College of Agriculture, University of Basrah, Iraq, comparing Borage to Brown Mustard, it was found that the honey bee extracted far more pollen from Borage than from Brown Mustard plant. This may be due to the fact that Borage contains significantly more pollen in each flower than does Brown Mustard and the anther of the Borage flower is twice the size of the Brown Mustard flower.

The average number of pollen grains in borage is 1412500 while brown mustard had 671100 grain / anther. This makes sense because the flower size in borage 2.2 cm and the brown mustard flower is 1.3 cm. Additionally, the shape of anther of Borage is triangular and about 1 cm long while the anther of Brown Mustard is spherical with a diameter of less than 0.3 cm. For these reasons the Borage anther can hold more pollen than the anther of the Brown Mustard flower. The research showed that both plant species are rich in pollen and nectar, both are attractive to honey bees, and both bloom within the winter critical period.^{viii}

Uses of Borage: The leaves and flowers of the Borage plant are edible and can be eaten fresh or stored in the refrigerator for two to three days. Borage can add a bit of salty cucumber flavor and beautiful color to salads, soups, dips, beverages, and ice cubes. Chop the leaves finely for use in cooking. The young stalks are also edible; prepare them as you would celery or similar vegetables. Caution is suggested when consuming borage because the mature borage leaves contain small amounts of liver-toxic alkaloids and should be used in moderation.^{ix}

Borage oil is derived from the seeds of the plant and is a rich source of gamma-linolenic acid (GLA), which is purported to have an anti-inflammatory effect.^x Borage oil also contains linoleic acid (LA), and other fatty acids including oleic, palmitic, stearic, eicosenoic, and erucic acids.^{xi} Borage oil has been used in traditional and herbal medicine to treat such ailments as rheumatoid arthritis, menopausal symptoms, coughs, dermatitis, and depression.^{xii} However, these benefits are not supported by high quality clinical studies. Remember to always speak with a doctor before taking Borage supplements or before using topical Borage creams, and never use them in place of something your doctor recommends or prescribes.^{xiii}

Where to Buy Borage: You likely will not find Borage at the Home Depot Garden section or the Plum Creek pop up stands you see in the summer. Borage is a specialty plant and is generally available at the Hudson Gardens Spring Flower sale or you can purchase seeds online. Also, if you have a friend that has Borage plants, you can ask for a few harvested seeds this fall for Spring planting next year.

REFERENCES

ⁱThe Role of Brown Mustard Brassica Juncea, L. Czern and Borage Borago Officinalis L. in Supporting Honey Bees Apis Mellifera L. with Pollen Grains and Nectar through the Winter Critical Period within Basrah Environmental Conditions. Husain Ali Mehdi, Taha Y. Al-Edany* and Alaa Sabeeh Jabbar. Department of Plant Protection, College of Agriculture, University of Basrah, Iraq. Plant Archives. Vol. 20, Supplement 1, 2020 pp. 2519-2524. <https://faculty.uobasrah.edu.iq/uploads/publications/1618978633.pdf>.

ⁱⁱBorage is also known as burrage, common bugloss, bee-bread, bee fodder, ox's tongue, and cool tankard.

ⁱⁱⁱThe Spruce. Marie Iannotti. September 7, 2021. <https://www.thespruce.com/how-to-grow-borage-1402625>.

^{iv}Companion planting to attract pollinators increases the yield and quality of strawberry fruit in gardens and allotments. (Janine Griffiths-Lee, Elizabeth Nicholls, Dave Goulson May 2, 2020). Ecological Entomology Vol. 45, issue 5. <https://doi.org/10.1111/een.12880>.

^vThe Spruce. Marie Iannotti. September 7, 2021. <https://www.thespruce.com/how-to-grow-borage-1402625>.

^{vi}ASPCA. [https://www.aspc.org/pet-care/animal-poison-control/toxic-and-non-](https://www.aspc.org/pet-care/animal-poison-control/toxic-and-non-toxic-plants/borage)

[toxic-plants/borage](https://www.aspc.org/pet-care/animal-poison-control/toxic-and-non-toxic-plants/borage).

^{vii}Flower Species as a Supplemental Source of Pollen for Honey Bees (Apis mellifera) in Late Summer Cropping Systems. Rhonda Simmons, Ramesh Sagili, and Bruce Martens. https://agsci.oregonstate.edu/sites/agsci7/files/coarec/publications/flower_species_as_a_supplemental_source_of_pollen_for_honey_bees.pdf

^{viii}Husain Ali Mehdi, Taha Y. Al-Edany and Alaa Sabeeh Jabbar

^{ix}FoodReference.com. <https://www.foodreference.com/html/fborage.html>. Also. PubMed. National Library of Medicine. Borage. February 15, 2021. <https://pubmed.ncbi.nlm.nih.gov/30000849/>.

^x<https://www.healthline.com/health/borage-oil>.

^{xi}Memorial Sloan Kettering Cancer Center. Borage. <https://www.mskcc.org/cancer-care/integrative-medicine/herbs/borage>.

^{xii}Id.

^{xiii}Health Encyclopedia. University of Rochester, Minnesota.

Borage. <https://www.urmc.rochester.edu/encyclopedia/content.aspx?contentTypeid=19&contentid=BorageOil>.

^{xiv}The Spruce. Marie Iannotti. September 7, 2021. <https://www.thespruce.com/how-to-grow-borage-1402625>.

UPCOMING EVENTS IN THE COMMUNITY

ACE HARDWARE GRAND OPENING

This store would like to stock beekeeping supplies and JCBA is ready and willing to help! Join us for their Grand Opening on June 19th where we will speak to attendees about beekeeping and all things honey!

When: June 19

1:00pm- 4:00pm

Where: Ace Hardware

10000 Ralston Rd

Arvada, CO 80004

(West corner as Kipling turns into Ralston)

ORPHEUS MEADFEST TASTING & AWARDS

The 2022 MeadFest tasting and competition is just around the corner. There will be mead tastings from a variety of Colorado meaderies, appetizers and the ability to purchase and take home some award winning meads! The Orpheus Home-Brew club will have tastings available as an add-on! Plenty of on-site parking.

Note: This is a 21+ only event

When: July 23

4:00pm - 7:00pm

Where: Jefferson Unitarian Church

14350 W 32nd Ave

Golden CO

Tickets: \$25 single or \$45 for two (online only)

Orpheus Home-Brew Club +\$5

<https://orpheuspc.org/site/orpheus-meadfest/>

CLUB STUFF

HONEY BUCKETS

Reminder to pick up your honey buckets and lids (limit 2 until all members have received theirs) during regular meetings. Email the club if you are interested in the bucket with gate option for \$10.

APIARY CLINICS

Bee aware that some clinics require advance RSVP due to limited equipment. Check your email regularly for upcoming schedule!

MITE TREATMENT EQUIPMENT

Did you know that JCBA has equipment you can borrow? We do! Vaporizers for Oxyalic Acid are available to borrow from the club for mite treatments.

MENTORING & BEE BUDDIES

Looking for a mentor? Or don't need a mentor but would like to sign up for our Bee Buddy program? Email the club to be added to the list! You don't have to heft those heavy supers alone!



SIP LIFE'S SWEET MOMENTS

MANGO PINEAPPLE SORBET

Yield: 1 quart

INGREDIENTS

3 cups Papaya nectar or Orange juice divided
1 ⅓ cup Frozen mango chunks
1 ⅓ cup Pineapple chunks, canned or frozen
¾ cup Honey
⅓ cup Fresh lime juice

DIRECTIONS

In a food processor, puree 1 ½ cups papaya nectar or orange juice and remaining ingredients. Stir in remaining 1 ½ cups papaya nectar or orange juice. Freeze according to ice cream maker manufacturer's instructions.

VEGGIE WRAPS WITH AVOCADO-HONEY DRESSING

Yield: 3 servings

INGREDIENTS FOR DRESSING

2 T Honey
½ Avocado
2 T Lemon juice
1 Garlic clove
2 T Mayonnaise
3 Flour tortillas (8")
½ Red pepper, thin sliced
½ Carrot julienned
½ Cucumber, thin sliced
1 Tomato, sliced
3 oz. Romaine lettuce, chopped
Salt & pepper to taste

DIRECTIONS

Combine honey, avocado, lemon juice, garlic and mayonnaise and blend until smooth. Spread the avocado honey dressing evenly on tortillas, build them with the remaining ingredients as you wish. Roll them up and enjoy!

From the Honey Board

YUM!!

FOR WRAPS

2 oz. Cheddar cheese, grated

NEXT ISSUE

TOP BAR HIVE

Stay tuned for a report on top bar hives!

