

Healthy Lives, Health Bees

Essential Oils and Beekeeping

Story By: Timothy S. Edwards



According to Master Beekeeper James “Jim” G. Miller, essential oils can be as beneficial to raising healthy bees as they are for the beekeeper.

Miller gave a presentation to the West Plains Beekeepers Association on how to use essential oils in beekeeping and the benefits that their use can have on a keeper’s bee population.

Aroma Web defines an essential oil as “a liquid that is generally distilled (most frequently by steam or water) from the leaves, stems, flowers, bark, roots, or other elements of a plant.” They further describe essential oils as “clear liquids, but some oils such as patchouli, orange and lemongrass are amber or yellow in color.”

The use of essential oils date far back in history and is well documented in historic literature.

“Looking back in time and reading the bible and other books of ancient history, we find that dozens of different types of essential oils have been used,” Miller explained. Egyptians used them for purification and embalming rituals. Other oils like cinnamon, cloves and lemon, were found to be antiseptics hundreds of years before synthetic medicines were developed.

“The ability to work on the mind and body, make essential oils unique for natural therapeutic agents,” he continued. “Fragrances of some essential oils can be very stimulating, both psychologically and physically.”

There are three basic ways to administer essential oils: rubbing it on the skin, digesting it or inhaling it. Obviously rubbing the oil onto thousands of bees could prove challenging, but there are ways to administer it to these small industrious creatures as well. The

easiest way is to dilute it in the bee’s feed, either in sugar water or a mineral patty. Essential oils are a strong concentrate and too much can be deadly to the bees. Since oil and water don’t mix, you have to add an emulsifier such as Polyglycerol.

Some reasons for feeding essential oils to bees include but are not limited to the following:

- They suffer from Nosema (a disease of the intestines).
- They sometimes become weak and lethargic.
- They become infected by different diseases from mites.

Also, a university tested grapefruit and sweet orange, which have Ph levels of 3 to 3.5, on honey bees. They found if you could get the Ph of a honey bee down to 5.5 you get a healthier bee. They measured out what a bee could handle and found that grapefruit is best for lowering the Ph but bees couldn’t handle as much. Bees could handle more of the sweet orange though.

Miller uses Thyme, Lemon Grass, Sweet Orange, Peppermint, Tea Tree and Eucalyptus essential oils with his bees. He uses these for the following properties:

- Thyme-Thymol (37-55%) – Anti-Aging, Anti-Microbial, Antifungal, and Antiparasitic.
- Lemon Grass – Used for Digestion, Antifungal, Antibacterial, and Improves Circulation.
- Sweet Orange – Proven to lower PH of Honey Bee.
- Peppermint – Digestive Stimulant, Anti-inflammatory, Antitumoral, Antiparasitic and Antibacterial.
- Tea Tree – Promotes Cleansing and Purity, Antimicrobial and Antiseptic.
- Eucalyptus – Fights Fungal Infections, Viral Infections, Analgesic, Antiviral and Insecticidal.

Miller started using essential oils in 2006 after a trip to the country of Georgia, which is located in the Caucasus region of Eurasia. They showed him how they took care of bees without chemicals. Instead they used things like Eucalyptus for repelling mites and add pine extract and apple cider vinegar to their feed for Nosema.



A recent trial Miller conducted on a hive suffering from Nosema showed promising results. The diagnosed hive recovered within 15 days of being treated with essential oils.

"The hive survived because of the sun was out and bright, the fresh, warm air and the essential oils: Thymol, Tea Tree, Lemon Grass and Eucalyptus," Miller stated.

A hive doesn't have to be sick though to treat with essential oils. If they are administered correctly, they will not hurt the bees, according to Miller. He also said that growing the plants that the essential oils are made from as well as other plants will also help. He has nine gardens on his property with plans to add a tenth this spring. For more ideas on these plants, see Miller's presentation on the WPBA website.

"How you want to do your bees is up to you," Miller said. "I haven't had a problem with them being sick. I have more problems with yellow jackets."

Beekeeping Reminders

1. West Plains Beekeepers Association meeting. The Meeting goes from 6:00 p.m. to 8:00 p.m. at the Medical Lake Pizza Factory, 123 S. Broad St., Medical Lake. This month's guest speaker will be Julie and Bob Parry. They will speak on Mason Bees.
2. Beehive registration deadline for the state is April 1.
<http://agr.wa.gov/FP/Forms/PP/docs/6116-Beekeeper-BrokerRegistration.pdf>
3. Bee Packages are available for preorder. Expecting delivery in the second or third weekend in April.
4. BeeManiacs' Bee Day: Swap Meet, April 15.
5. Need Volunteers for upcoming events:
 - a. April 22-23: Earth Day in Riverfront Park.
 - b. May 13: Spokane Herbal Fair.
 - c. May 13: Cheney May Fest.
 - d. June: Medical Lake Founders Day.
6. West Plains Beekeeper Association Membership Renewal.

2017 Annual Membership Dues

Last reminder that 2017 membership dues for the West Plains Beekeepers Association are due. We need your support as we make plans for this coming year.

Dues go to developing new classes, increasing our presence at events in the community and participating in further partnerships with other organizations. Our goal is to spread the message of the importance of honeybees and beekeeping in our area. New this year we are looking forward to launching a children's presence on our website.

Benefits of membership include discounts at Miller's Homestead and BeeManiacs; free enrollment for special classes that we offer during the year; and eligibility for listing on our SwarmCatchers List. Remember our annual \$20 membership covers not just you but your family as well, so get the whole family involved in our activities.

It's easy to use the PayPal option on our website to pay your dues. You can also pay at our monthly meeting on March 17th or you can send a check payable to **WPBA to P.O. Box 134, Medical Lake, WA 99022.**

For those of you who have taken our Beginning Beekeeping class in November 2016, you are already a member for 2017.

We look forward to your continued support for 2017.

Bee Sales Notice

We have heard from many local beekeepers about their desire to obtain Caucasian honeybees. Caucasians had been readily available years ago in our area but that has not been the case recently.

Several of our beekeepers managed to obtain a few last year from different sources, but this year we have a local supplier who is accepting orders for Caucasians.

BeeManiacs in the Deer Park area has them listed on their website <http://beemaniacs.com/2017-old-sol-nucs-and-queens-available-at-beemaniacs/>.

Caucasians are supposed to be more winter hardy than the other available honeybees. If you have been hearing about them and have wanted to give them a try, take a look at what BeeManiacs has to say about them.

They will also be selling Carniolan and Italian bees.

Other Bee Sales include:

Miller Homestead is selling Carniolan and Italian Bees.
<http://www.millershomestead.com/NCPurchaseBees.html>

Tate's Honey Farm is selling Carniolan and Italian Bees
<http://www.tateshoneyfarm.com/package-bees-queens/>

Strengthening the Hive

Engaging the Next Generation of Keepers

Story By: Timothy S. Edwards

Who is more excited about honeybees?

Unless you are the uber honeybee fanatic that is a member of one of the wonderful honeybee keeper associations around the world, it is most likely not the average adult. Kids, who play in the dirt and spend hours watching the various animals and insects that reside in nature, are far more likely to be interested in honeybees and how they work.



What better way to inform a community of people about

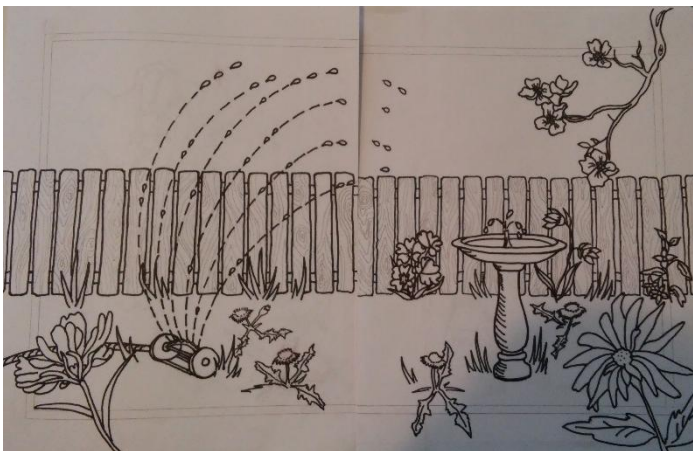
honeybees than to catch the interest of the children who reside in it. The same children, that once interested in something, will drive their family, friends and teachers crazy with questions about them until everyone around them knows as much as they do about honeybees.

To better engage with the children of the local community, the West Plains Beekeepers Association has started a Youth Program emphasizing: "Be a Bee Helper."

"Cathy (Richter) noticed that we were lacking something for kids after the Cheney May Fest last year," said Marilyn Geiger, one of the member of a committee tasked with creating the association's youth program. "Kids tend to be more interested in bees and they are learning more about bees in school now."

The association's youth committee decided on five avenues for the program to reach out to children.

1. A sticker with the youth program logo on it.
2. A coloring book.
3. A craft project.
4. A picture board.
5. An online youth website linked to the association's website.



"There was a list of about twenty ideas," explained Sandy Fanara, the committee chairperson. "We narrowed it down to these five that we thought were doable in the time frame and cost effective. One of the big criteria for this program was that it would be portable. We have to be able to easily transport and set up whatever we do."



"We now have a platform to jump off from and allow us to evaluate what kids will be drawn too," she continued. "As we use it we will see what needs to grow."

One of the key features of the program is the website which will have a variety of information on honeybees for children. It will also include a page that is created by 10-year-old Lincoln Marsh who is a member of the committee, an apprentice beekeeper and one of the youngest members of the association. He will be able to create his own content as a way to better reach others of his generation.

Many events are kid-friendly but lack anything for the kids.

"Kids are often told not to touch things, Fanara said. "This gives them something they can touch and interact with."

The first event that the association plans to roll this out at is Earth Day in Riverfront Park which is approaching fast with a date of April 23 and 24. One of the biggest issues the association has for events is volunteers.

"Volunteer when we set up booths," Geiger said when asked what would be the best way to help the new youth program. "We need more people. When you have a child waiting while we talk to the adults during an event, it isn't fair to them."

If you are not comfortable interacting with the community directly, there are a lot of things that you can help with while volunteering like setting up and maintaining booths and transporting equipment to and from events. Events coming up quick that they are looking for volunteers to support are as follows:

- Earth Day - April 22 & 23.
- Spokane Herbal Fair - May 13.
- Cheney May Fest - May 13.
- Medical Lake Founders' Day - June.

Beekeeper Spotlight: Mellody Descoteaux

Story By: Timothy S. Edwards



The day is bright and sunny, you have a nice cup of coffee made just right, and a comfortable chair to enjoy both in; what else do you need?

According to Mellody Descoteaux, hives of honeybees in flight!

"I find that the hives are my new source of serenity when they are flying," explained the beekeeper of three years. "I prepare a cup of coffee or tea and sit where I can watch the hives. I find watching their daily activities is very mesmerizing. Definitely a way to melt away the hustle of daily life. What a way to unwind!"

She started beekeeping due to concerns over the bee crisis.

"We heard news reports from a variety of sources about hive collapse (Colony Collapse Disorder (CCD) is the phenomenon that occurs when the majority of worker bees in a colony disappear and leave behind a queen, plenty of food and a few nurse bees to care for the remaining immature bees and the queen)," Descoteaux explained. "I enjoy gardening and the lack of bees is frightening. I wanted to do my part. Maybe we can help add to the bee population."

Continuing to do her part, she is trying new gardening techniques to help take care of the bees.

"We tried straw bale gardening with average results. I'm hopeful we figured out what we need to fix so the bees will



have that source," she explained. "We are also incorporating bee friendly plants in all of our landscape projects."

Descoteaux does more than just keep bees at home and work to figure out the best way to be a hobby beekeeper. She also actively participates in events around the region that helps promote honeybee awareness and beekeeping.

"These type of events touch many people," She explained why she participates in so many. "I find it very exciting to encourage those who are interested in taking the plunge (into beekeeping). I can tell them our experiences in the hope of easing their worries in beekeeping."



"I have met many of the people I work with at these events," she continued. Conversations are really fun because we already know each other. I also like to chat with the parents of kids that are interested, hoping to calm their fears and converse about how a beehive might work after all."

It isn't all sunny days with the hive and home though.

"We lost two hives last year and it looks like all of them this year," Descoteaux said. "Very sad day. We are making plans for more bees and trying to figure out what happened."

Successful over wintering a hive is her biggest challenge. She relies on her mentors and friends from the West Plains Beekeepers Association to help her move forward.

"I network, read and ask question. We have incorporated practices from Jim Miller, Jack and Ellen Miller, along with ideas from the ABCs on Beekeeping, 1942 edition. WPBA is a key element to our continued success," she explained. "They have provided information about current conditions, what is and is not working, access to purchase blueberry plants, opportunities to staff the display at events and a lot of other things."



The challenges also came with a number of successes. She has caught a swarm, split a hive and harvested tasty honey.

"Our honey had a very strong clover taste that people really liked. That result has prompted us to plant a bunch more clover."

She had five things she would advise anyone who would like to keep bees.

1. Read and learn about honeybees.
2. Join a club that is active.
3. Take a class and get hands on experience.
4. Be ready to spend money to get set up.
5. Keep it simple.

Pilot Project Notice



The Washington State Weed Board is looking for willing landowners to participate in a multi season pilot project. This project will work towards replacing pollinator-friendly noxious weeds with native pollinator-friendly plants that share the same bloom succession. The weed infestation should be known to be beneficial to European honeybees and other pollinators.

The landowner must have an infestation between 0.1 – 1 acre, and be willing to work with guidance from the County Noxious Weed Board to achieve control as soon as Spring 2017. The land Owner will then be supplied the native seeds for planting.

The Sites will be selected by the State Weed Board's Pollinator Forage Committee.

If you are interested and would like more information, contact Emily Walston at emilyannwalston@gmail.com.

Mycelium Education, Awareness

Paul Stamets and Louie Schwartzberg will be in Seattle March 29, providing education and awareness about mycelium, honey bees and solutions to problems that truly have an impact on our food supply. Their presentation will feature cutting edge research and innovative alternative methods for not only helping the honeybee, but people and the planet as well. Both Paul and Louie are well known TEDtalk speakers, as well as experts in their fields.

Location:

Moore Theatre
Seattle, WA

Cost:

\$25.00

We anticipate a sold-out venue at the Moore. All proceeds go to honey bee and pollinator research. We appreciate your support.

<http://bees.wsu.edu/seattle/>

Protecting the Hive: The Yellow Jacket Threat

Story By: Sandy Fanara

Yellow Jackets can wreak havoc on honeybee hives. Making a plan to protect the hives starts before the last frost of Winter. Strong honeybee hives do have a better chance of protecting themselves from Yellow Jackets early in the year when Yellow Jacket colony population is low. As Spring and Summer commences on, Yellow Jacket populations grow quickly, and their need for protein rich foods (mostly from the larvae of insects (including bee larvae) and other soft bodied insects, carcasses, and some small baby animals) also increases. The larger a Yellow Jacket colony becomes, the larger the danger it is to even the biggest of honeybee hives. If the beekeeper intends on trying to rid the apiary of the majority of Yellow Jackets (at least try to), there are a few ways to do so. One way is to seek out nests/colonies and kill them when found. Another way, is to trap as many Yellow Jackets as possible before they get to the hives. And, the third way, later in the Summer, is to poison the colony through the use of a toxin laced bait taken by foragers back to the colony.

In the early Spring, the queen Yellow Jackets emerge from their Winter hibernation. They search out a protected area to begin building a nest, and lay the first eggs. Baiting traps with both sugar and protein based baits will attract them. The sugars are eaten for a fast energy boost, and proteins are taken back to the growing larvae. I have had very little luck using the pheromone attractants. I have had much more success using sugary sweet apple juice concentrate, fruit punch, and orange soda; as well as proteins like ocean white fish canned cat food, minced canned chicken, and raw hamburger meat. By providing a 'buffet' of attractants in several traps you can meet the foraging needs of the Yellow Jacket, and trap more of them. Trapping queens, of course means that there will be at least one less colony. Trapping the first of the foragers means that the larvae back at the nest will receive less food to grow, thus weakening the colony.

Researchers in Southern California, Hawaii, and New Zealand...to name just a few...have all found that baiting and hanging traps in a circumference around the intended protected area (like a picnicking area, bar-b-q, or apiary) at about a 30-50 foot distance between traps creates a dense enough trap 'curtain' to attract and trap Yellow Jackets trying to enter that area. Also, fresh bait attracts the Yellow Jackets consistently better. Depending on the warmth of days, traps should be freshly baited every 3-7 days.

It is important to keep the area you are trying to protect from being interesting to Yellow Jackets, in the first place. When working the hives, don't leave out boxes, frames, or scraped honey and brood comb to be cleaned by bees and other insects. The scent of the honey and torn brood comb, as well as the increased activity of the bees, etc will attract Yellow Jackets. Clean up dog dung from the area near the hives. The Yellow Jackets are attracted to the protein food in it, and will then be attracted to the activity of the hives. For the same reason, protein rich animal foods and people food filled garbage cans need to be removed from near the apiary.

When working your hives, try to prevent over stressing the bees. Agitated bees in flight above a hive are spreading pheromones

in the air, meant to enlist the help of their sisters, these pheromones can also attract the attention of Yellow Jackets. Yellow Jackets are attracted to commotion, stressed creatures, and smells from up to a distance of a 1/4 mile (maybe more). Keeping your apiary clean and relatively calm will help prevent Yellow Jacket attraction.

Michael Thiele Seminar

Portland Urban Beekeepers is very excited to be bringing in bee expert Michael Thiele of Gaia Bees to speak at a special event on **March 18, 2017**. Michael's biodynamic approach to honey bees is centered around the essentials of nest integrity and the understanding of the hive as a singular, sentient being. In this seminar, accessible for anyone interested in the health of bees no matter their experience, Michael will discuss the unique matrix of the life of honey bees and examine how a bee-centric approach can integrate core life principles into our relationship with honey bees and into our apiaries.

Michael Joshin Thiele lived and practiced at Green Gulch Farm for eight years and received lay ordination in 2001. He is leading an innovative and multidimensional approach within the biodynamic apiculture movement, and teaches in the United States and abroad.

He is founder and president of Gaia Bees and is researching new dimensions of apiculture in a sociocultural, agricultural, and spiritual context. In the last decade, Michael has been involved with the creation of honey bee sanctuaries and refuges as a means of protection and education. The most recent project is the Honey Bee Sanctuary and Refuge at Green Gulch Farm. In 2013, he worked as a biodynamic consultant for the USDA in the Dominican Republic, and more recently he presented his work at Harvard University. His work is documented in various national and international magazines, books, and film documentaries (Queen of the Sun). He lives with his family in California, USA.

When:

March 18th, 2017

9:00 AM - 4:00 PM

Location:

5830 NE Alameda St
Portland, OR 97213

Recipes from the Apiary

Apple Crisp

Shared by: Joe Geiger



Ingredients:

4 cups	Sliced Apples
1 Tablespoon	Honey
¾ cup	Flour
1 cup	Old-fashioned Oats
5 tablespoons	Melted Butter
¾ teaspoons	Cinnamon
1 tablespoon	Honey

Directions:

1. Put the sliced apples in a buttered 8" pan. Drizzle with 1 tbsp. honey.
2. Combine flour, oats, and cinnamon.
3. Stir in melted butter, then mix in honey, stirring well. Spread this mixture over the apples.
4. Bake at 350° for 30 minutes.

Delicious served with vanilla ice cream!

Bread Recipe - Honey and Different Flours

Shared by James G. Miller

The original bread recipe comes from "The Kitchen" website. I have taken time to change the number of ingredients and the different flours.

The different flours that I have used making this bread are as follows:

1. King Arthur Flour - All Purpose Flour
2. King Arthur Flour - Bread Flour
3. King Arthur Flour - Whole Wheat Flour
4. King Arthur Flour - White Whole Wheat Flour
5. Red Mill - Kamut Flour
6. Red Mill - Buckwheat Flour

I started with the basic recipe, which I will list later on. I have been interested in the different kinds of flour and the benefits of them. I am interested in taste; the benefits of health and nutritional values for Jenine and I; how they are made. The following information is what I have learned about these flours.

1. All Purpose Flour - Is made from a blend of high and low-gluten wheat. Has less protein than bread flour. Between 11% and 12%. If All Purpose Flour is used the product is tough, chewy and disappointing.
2. Bread Flour - High in gluten flour with small amount of malted barley flour and vitamin C or potassium bromate which has been added. The barley flour helps the yeast to work. The other ingredients increase the elasticity of the gluten and its ability to retain gas as the dough rises and is baked. Bread flour when used with other grains adds lift to boost the other grains. (Makes it lighter)
3. Whole Wheat Flour - This is a full-flavored flour containing vitamins, minerals and protein. It is more nutritious than refined white flour. Whole grain is a good source of calcium, iron, fiber, and other minerals like selenium. This flour has a shorter shelf life than white flour. It does contain the whole grain, the bran, the germ and the endosperm in the naturally occurring proportions.
4. White Whole Wheat Flour - It is milled from hard white spring wheat. It has a lower gluten content and also lacks the tannins and phenolic acid that red wheat contains. It doesn't taste bitter.
5. Red Mill - Kamut Flour - Better known as Khorasan wheat. It is an ancient grain. It is twice the size of today's wheats. It is known for its rich nutty flavor. The grains contain more proteins, lipids, amino acids, vitamins and minerals than modern wheat. It is

produced in Montana by two farmers, Mack and Bob Quinn who have registered it. It must be free of genetic manipulation; the protein range is 12 to 18%; 98% free of disease; must not be mixed with modern wheat in pasta; it should not be mixed with more than 50% of modern wheat in bread.

6. Red Mill – Buckwheat Flour – It is not a cereal grain or a wheat. It was first grown in the southeastern China and Himalayas centuries ago. It was a staple food like rice. Buckwheat has more starch than other grains. The protein level ranges from 11 to 14%. It is a gluten-free food source. The antioxidant compounds are rutin, tannins, and catechin. Rutin helps to prevent clot formation inside the blood vessels. Has more B-complex vitamins along with more concentration of copper and magnesium. Magnesium relaxes the blood vessels leading to the brain and has found to have a healing effect on depression and headaches.

To help with the baking of the bread and the removal of oils and greases used to coat the pans we are using Goldtouch nonstick Loaf Pans. They are gold in color and require no grease or oils to keep the bread dough from sticking. These pans protect the flavor of the baked bread.

The following will provide two loaves of bread.

Collect and measure all your ingredients before starting to mix them. This way you will have the correct item along with the correct amount. The ingredients are as follows:

Place the following in a micro safe bowl:

1. 1 ½ Cups Hot water with a temperature of 100 to 110 degrees F
2. 1 ½ Cups Almond silk placed in the hot
3. 0.375 Cups Honey
4. 3 Tablespoons Canola Oil

Once the mixture temperature has been obtained add:

1. 3 teaspoons Active dry

Set the timer and wait five minutes for the yeast to become active.

While you are waiting these five minutes, mix the following in the bowl for the mixer. The mixer should have a dough hook.

1. 4 ½ Cups King Arthur Bread Flour
2. 3 ¾ Cups King Arthur Whole Wheat Flour

(Note: You can substitute the above listed flours from the six in the first part of this receipt.)

3. 1 ½ Tablespoons Sea Salt
4. 3 Tablespoons Gluten (this can be eliminated if desired)

Once the dry ingredients are mixed and the yeast has been active for five minutes, mix the two together into the bowl and add the bread hook. Using a timer mix for about seven minutes. Remove from the bowl and place in an air tight container. The stove should be turned on to 400 deg. F. and the Air Tight container placed on or close to the heated stove.

After one hour remove the bread from the Air Tight container and punch it down. Divide and place into your bread pans. Cover with a towel and place on the warm oven. After about 45 minutes remove the towel and place in the oven. Reduce the oven temperature to 350 deg. F. and cook for about 30 minutes. Using a thermometer check the internal temperature of the bread. The reading should be between 190 and 200 deg F. This will make sure the bread is baked all the way through.

Remove the pans from the oven and dump the bread onto a cooling rack. Using a pastry brush coat the top of the loaves with oil. Cover and let cool before cutting.

Enjoy the fruits of your labor.
Butter, homemade jams, or honey, your choice.
Don't forget the napkin to catch the drips.

March 2017

Nº	Sun	Mon	Tue	Wed	Thu	Fri	Sat
9				1 Hive Registration Deadline: April 1	2 Bee Package Order for April Delivery	3	4 Class Day 1 <i>Beginning Beekeeping</i> Medical Lake Pizza Factory 123 S. Broad St., Medical Lake 10:00 a.m.-2:00 p.m.
10	5	6	7 Hive Registration Deadline: April 1	8 Class Day 1 <i>Beginning Beekeeping</i> Medical Lake Pizza Factory 123 S. Broad St., Medical Lake 6:00 p.m.-9:00 p.m.	9 Bee Package Order for April Delivery	10	11 Class Day 2 <i>Beginning Beekeeping</i> Medical Lake Pizza Factory 123 S. Broad St., Medical Lake 10:00 a.m.-2:00 p.m.
11	12	13	14 Hive Registration Deadline: April 1	15 Class Day 2 <i>Beginning Beekeeping</i> Medical Lake Pizza Factory 123 S. Broad St., Medical Lake 6:00 p.m.-9:00 p.m.	16 Bee Package Order for April Delivery	17 Association Meeting 123 S. Broad St., Medical Lake 6:00 p.m.-8:00 p.m. Julie & Bob Parry Mason Bees	18 Class Day 3 <i>Beginning Beekeeping</i> Medical Lake Pizza Factory 123 S. Broad St., Medical Lake 10:00 a.m.-2:00 p.m.
12	19	20	21 Hive Registration Deadline: April 1	22 Class Day 3 <i>Beginning Beekeeping</i> Medical Lake Pizza Factory 123 S. Broad St., Medical Lake 6:00 p.m.-9:00 p.m.	23	24	25 Spokane Sustainable Local Food Colloquium WPBA Booth and Pollinator Presentation @ 3:30
13	26	27	28 Hive Registration Deadline: April 1	29 Class Day 4 <i>Beginning Beekeeping</i> Medical Lake Pizza Factory 123 S. Broad St., Medical Lake 6:00 p.m.-9:00 p.m.	30	31	

April 2017

Nº	Sun	Mon	Tue	Wed	Thu	Fri	Sat
13							1 <i>Deadline for Hive Registration</i>
14	2	3	4	5	6	7	8
15	9	10	11	12	13	14	15 <i>BeeManiacs: Keepers Swapmeet</i> <small>BeeManiacs 7619 W Woolard Rd Deer Park, WA 99006</small>
16	16	17	18	19	20	21 <i>Association Meeting</i> <small>123 S. Broad St., Medical Lake 6:00 p.m.-8:00 p.m. Todd McLaughlin Integrated Plant Management</small>	22 <i>Earth Day</i> <small>Riverfront Park</small>
17	23 <i>Earth Day</i> <small>Riverfront Park</small>	24	25	26	27	28	29
18	30						

May 2017

Nº	Sun	Mon	Tue	Wed	Thu	Fri	Sat
18		1	2	3	4	5	6
19	7	8	9	10	11	12	13 <i>Cheney May Fest.</i> <i>Spokane Herbal Fair</i>
20	14	15	16	17	18	19 <i>Association Meeting</i> <small><i>123 S. Broad St., Medical Lake 6:00 p.m.-8:00 p.m.</i></small>	20
21	21	22	23	24	25	26	27
22	28	29 Memorial Day	30	31			

June 2017

Nº	Sun	Mon	Tue	Wed	Thu	Fri	Sat
22					1	2	3
23	4	5	6	7	8	9	10
24	11	12	13	14	15	16 <i>Association Meeting</i> <small>123 S. Broad St., Medical Lake 6:00 p.m.-8:00 p.m.</small>	17
25	18	19	20	21	22	23	24
26	25	26	27	28	29	30	

July 2017

Nº	Sun	Mon	Tue	Wed	Thu	Fri	Sat
26							1
27	2	3	4 Independence Day	5	6	7	8
28	9	10	11	12	13	14	15
29	16	17	18	19	20	21 Association Meeting <i>123 S. Broad St., Medical Lake 6:00 p.m.-8:00 p.m.</i>	22
30	23	24	25	26	27	28	29
31	30	31					

August 2017

Nº	Sun	Mon	Tue	Wed	Thu	Fri	Sat
31			1	2	3	4	5
32	6	7	8	9	10	11	12
33	13	14	15	16	17	18 <i>Association Meeting</i> <i>123 S. Broad St., Medical Lake</i> <i>6:00 p.m.-8:00 p.m.</i>	19
34	20	21	22	23	24	25	26
35	27	28	29	30	31		

September 2017

Nº	Sun	Mon	Tue	Wed	Thu	Fri	Sat
35						1	2
36	3	4 Labor Day	5	6	7	8	9
37	10	11	12	13	14	15 <i>Association Meeting</i> <i>123 S. Broad St.,</i> <i>Medical Lake</i> <i>6:00 p.m.-8:00 p.m.</i>	16
38	17	18	19	20	21	22	23
39	24	25	26	27	28	29	30

October 2017

Nº	Sun	Mon	Tue	Wed	Thu	Fri	Sat
40	1	2	3	4	5	6	7
41	8	9 Columbus Day	10	11	12	13	14
42	15	16	17	18	19	20 <i>Association Meeting</i> <small>123 S. Broad St., Medical Lake 6:00 p.m.-8:00 p.m.</small>	21
43	22	23	24	25	26	27	28
44	29	30	31				

November 2017

Nº	Sun	Mon	Tue	Wed	Thu	Fri	Sat
44				1	2	3	4
45	5	6	7	8	9	10	11 Veterans' Day
46	12	13	14	15	16	17 <i>Association Meeting</i> <i>123 S. Broad St., Medical Lake</i> <i>6:00 p.m.-8:00 p.m.</i>	18
47	19	20	21	22	23 Thanksgiving	24	25
48	26	27	28	29	30		

December 2017

Nº	Sun	Mon	Tue	Wed	Thu	Fri	Sat
48						1	2
49	3	4	5	6	7	8	9
50	10	11	12	13	14	15 <i>Association Meeting</i> <i>123 S. Broad St., Medical Lake</i> <i>6:00 p.m.-8:00 p.m.</i>	16
51	17	18	19	20	21	22	23
52	24	25 Christmas Day	26	27	28	29	30
1	31						
