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President's Frame

A new year is starting and a few things have changed in our Association. There have been new officers elected, and I'm the lucky one to be President this year. My name is David Gill-Boucher, and I'm very excited about the coming year. First off, I'd like to thank David Papke for his past two years of service as President. David did a great job moving the Association forward, and I'm grateful to have the momentum to start me off in the right direction. I'm also glad he will be around as Past President to continue to provide welcome advice. Thanks also to Steve McDaniel for the wonderful work he has done as Vice President. Jeanne Deignan-Kosmides will pick up where he left off, and I'm sure she'll continue to do a great job. Bob Crouse kept the books nice and clean as Treasurer, and John Harmon will carry on as the new Treasurer. Thanks also to Mary Thurman as Secretary as Alex Flanagan takes over those duties.

I decided to take this position for two main reasons. I wanted to contribute to the community and learn more about beekeeping. I figure that through the Board of Directors I can help put together programs that will address the needs of our members. The programs can also be made available to people outside the membership to attract more people to beekeeping. So, the community to which I'm looking to contribute is twofold: our own community within the Association, and the Greater Baltimore area. If the membership were to increase, that could only be a good thing. The interaction with other members will undoubtedly teach me more about beekeeping. Everyone I've met so far has had some experience that was new to me, and I look forward to making more of those discoveries.

By way of background, I started beekeeping 5 years ago after reading just a couple of books. I'm not exactly sure why I decided to get involved with stinging insects, but I think it had to do with wanting to understand how a bunch of bugs could make order out of chaos. I heard many stories about how the hive was organized, and it sounded fascinating. Since I had recently moved into a rather rural area, I figured it was the best opportunity to get some bees without annoying any neighbors. I've really enjoyed trying out new ideas, and even though they didn't all work, I've had enough successes to keep my interest. As President I'm looking forward to the opportunity to learn more about beekeeping from all of the experts in our Association.

This new Administration will certainly have a different perspective on things. As I was putting together my ideas for this article, I noticed something interesting. The outgoing group counts among themselves some 70 years of beekeeping experience, whereas the new group has somewhere in the neighborhood of 10. Now, I don't consider that a handicap. Members of the Board don't have to be Master Beekeepers or anything like that. I expect that we will see things from a different perspective, and try things a little differently. We haven't "been there and done that", yet. We may come up with an idea that was tried in the past, but I'm sure we'll have a twist to it that will have our own unique signature. It may be a bumpy ride at times, but it sure is going to be interesting. For instance, I would like to get a group together and try our hand at queen rearing. There's nothing new about that. I'm sure there's loads of people from our Association have tried that in the past. But today there's a different set of circumstances. The threat of pests and Africanized Honey Bees calls for us to start figuring out how best to protect ourselves sooner rather than later. Queens bred to thrive in our local conditions can only make the situation better.

The January meeting will be the 6th where we will be discussing all things beekeeping as well as putting together ideas for the coming year. Bonus points for creativity.

Have a Happy New Year!

How Many Eggs Can A Queen Lay?

Walt Wright
Bee Culture Nov 2009

The queen is often given credit for preferences she doesn't have and judgments she doesn't make.

The word "can" is emphasized in the title of this submission. There are two kinds of "can." The rate of eggs per day is one kind, and the total eggs the queen is able to produce in her lifetime is the other. We'll touch on both.

Those of you familiar with my normal output will know that I am not shy about challenging "conventional wisdom" that is not supported by my personal observations. This submittal is no exception. Brace yourself for a discussion of the subject that strays from what you learned early in your beekeeping training. If you are certain that what you "know" is accurate, just flip the page, and enjoy the rest of the magazine.

We'll start with what the experts tell us. Two "facts" that are challenged herein are that the maximum queen laying rates range from 1000 to 2000 eggs per day and that a single, deep hive body is all the room a queen needs to lay in. Those two facts will be treated in that

order in this discussion: Rate first and volume second. Although rate and required volume are interrelated, we'll try to separate the two. Life time capacity is discussed later.

The highest rate of eggs per day that I have seen in the literature is about 2000. Most literature rates are somewhat less. In a recent article by Larry Conner, the rate per day that he used was 1400. C.L. Farrar! used 1600. In my opinion, these numbers are well below the actual rate per day that a quality queen *can* produce. It is not the intent of this submittal to promote my colony management approach, but application of that system suggests that standard management does not use the queen to capacity. My management system induces annual supersedure. In contrast, colonies managed by standard procedures often are headed by the same queen for three years. This disparity gives rise to the obvious question - Why? In the past, automatic supersedure was reported with no reasons given. I try to report what I see. If a reason is not obvious, I try not to guess.

Before we get into the numbers game, let me identify a few other unpopular opinions growing out of observations of my management system. These opinions are not found anywhere else, but significantly affect queen laying rates.

The queen is often given credit for preferences she doesn't have and judgments she doesn't make. Her daughters make the judgments on where and when eggs are needed. They, the workers, know which cells have been prepared for eggs. When the workers have need of the queen's services, they round her up (literally) wherever she is meandering and escort her to the area that is ready for eggs. Then the steering committee (court) fawns over her to induce laying. This opinion is supported by the fact that sometimes the queen can be found lumbering over empty brood comb with no interest in laying and no "court".

The workers also determine area and its location of the active rearing cells of the brood nest. The space allocated to active brood rearing is controlled with a built-in safety margin in the volume of the brood nest that can be protected. For example, the late Spring freeze seldom causes any loss to brood chilling. Their safety margin in cluster size versus brood volume normally protects the brood.

Keep in mind that the brood nest size stays in a state of change for the entire active season from start up in mid Winter to close out in late Fall. The changes are slow and may not be obvious to the casual beekeeper, but the changes reflect the colony objectives with the passing season. Briefly: early - build population to support reproduction by colony division; mid season - reduce population to limit erosion of accumulated stores; early Fall - build a population of young bees for wintering; late Fall - close out brood to conserve stores in early Winter.

One last observation that I expect to be unanimously rejected is that the colony adjusts the population to be proportional to stores and hive total volume. Adjustment of population is accomplished by regulation of brood nest volume. This population control can be seen in the relative cluster size going into Winter in northerly locations versus my area. Where successful wintering requires three deeps for wintering the early Winter cluster is much larger than in my area where a story and a half is sufficient. Think about it for a minute. If the colony failed to maintain population in balance with stores what would happen? Overpopulation would be suicidal - too much consumption would lead to starvation. Too little population would lead to slow build up, and the colony would fail to meet reproduction requirements in a timely manner. They need to maintain a supply of foragers to take advantage of any field sources that become available. Additionally, all the population need to be on the inside before the advent of severe cold weather.

I suspect the skill for population control is a result of their natural habitat. All tree hollows are not the same volume. The bees are adapted to using the total volume and regulating population and stores in proportion. Enough of my personal opinions! Let's push on.

This season (08) two swarms were collected from hives checkerboarded in early March. These hives were sold to a beginning beekeeper in the winter, and I showed him how to open up the overhead honey for swarm prevention on March 1. He failed to meet the second requirement of swarm prevention by not maintaining space at the top for colonies to grow into. Expecting them to swarm, three trips were made to that location on prime swarm issue days to see what happened. Two oversized swarms were collected and relocated closer to home. It's what happened to the two swarms in the establishment process that is relevant to the subject of this submittal. Not ever having collected a swarm from a checkerboarded hive, I followed their establishment progress with interest.

Both these swarms were large - a product of the increased brood volume of my management approach. Housed on foundation, they covered more than four frames. A normal feral swarm covers two to three. Geared for establishment, with a good flow on, they were not fed. At the end of a month, both had nearly filled their deep with drawn comb. At that one-month inspection, both colonies showed queen failure with a spotty brood pattern. They also showed they were or top of the problem - both had started supersedure cells. While it is normal for a natural swarm to supersede the old queen later in the establishment process as a precautionary measure, this was a little early in the process. And both were identical in cause and effect. This caused the old man to wonder if perhaps the increased brood volume of my system pushed the queen to her lifetime limit of egg production. Two other observations came to mind. In other seasons, occasionally a colony started supersedure well before the others, and generally, slower or weaker colonies did not start supersedure as soon as the strongest. Collectively these observations suggest that the total lifetime egg production of the queen may be approached in one

season when checkerboarded. Time to do the arithmetic.

First order of business - get an accurate count of cells per frame. I was surprised at the numbers of cells imprinted on an installed sheet offoundation. I use deeps for the basic wintering brood nest and shallows for the Spring brood nest expansion. The count yields slightly more than 3500 cells per side or 7000 cells per deep frame. A shallow frame is almost exactly half that. Wow!

Before we get too far into this, let me quote Dr. Farrar's reference to queen laying rates. He was an astute investigator, and I'm inclined to trust his judgment.

"Good queens seldom lay more than 1,600 eggs per day" (Part I)

"A prolific queen will require the equivalent of from 12 to 18 standard combs, depending upon the amount of honey and pollen in the hive even though theoretically all of her brood could be contained in five to six combs." (Part II)

Elsewhere in his eight-part article he used 24 days as a brood cycle. This allows a few days for cell cleaning after emergence and preparation of the cell for eggs to start the next cycle. We'll use his number for a brood cycle. Note that with the stroke of a pen, he debunked the notion that a single deep hive body is sufficient room for a queen to lay at her max rates.

If we integrate quote I and II above, we could conclude that most of his brood nest is contained in two deeps. He refers to his management system as an "unrestricted" brood nest. He maintained a larger brood nest by periodic hive body reversal to offset the natural brood nest reduction of swarm preps.

I also refer to the brood nest of checkerboarded colonies as unrestricted, but it is quite different. When checkerboarded prior to the swarm prep period the colony does not start the brood nest reduction of swarm preps. They continue brood nest expansion through the swarm prep period. My target brood volume is 2½ deeps of brood, but I often see more than the equivalent (in shallows) of three deeps of brood. That is a huge difference in population to work the flow. As Dr. Farrar points out, the key to maximizing production is colony population.

Back to the numbers game: To avoid boring you with an overdose of calculations, let me try to summarize. The numbers provided by Dr. Farrar are supported by my three-dollar calculator and observations of the brood nest size in double deeps. With 7000 cells per frame (wall to wall) it would take 4.3 + days for the queen laying 1600 eggs per day to fill a frame. With 24 days to make the circuit, she could recycle brood in roughly 5½ frames at that rate. It is important to keep in mind that the brood nest expansion into overhead honey in the Spring is dome shaped. The upper deep brood volume seldom exceeds half the available cells of the brood frames. When periodically reversed the natural brood nest reduction is offset during the swarm prep period and that technique does increase population for the flow. It also reduces swarming by not letting the brood nest decrease to the point of starting swarm cells. The brood volume is maintained at about a deep and a half through the reversal period, but contracts sharply after the last reversal. Dr. Farrar reversed hive bodies into the main flow to insure population through the flow.

The checkerboarded colony not only has more brood volume during the buildup but they are also slow to reduce the brood volume into the main flow. They seem to enjoy operating with a position of strength and accumulate much more honey than they need.

But this is about queen laying rates. I'm not an investigating scientist and have not accumulated definitive data on brood volumes. As noted above brood volumes of the equivalent of three hive bodies are seen routinely. Using a nine frame brood chamber, normally, the five center frames are used for brood. Another factor to consider is that as the brood nest grows upward through shallow supers the expansion dome is often in the top shallow super. Intermediate shallows are often wall to wall shallow frames of brood in five frames. Five shallow frames of wall to wall brood is approximately 3500x5 or 17,500. It would take a queen laying at a rate of 1600 eggs per day almost 11 days to recycle brood in that single shallow. She could recycle brood in two such shallows in the circuit time, but what about the other shallows and the basic deep? My target brood volume of 2½ deeps translates to a deep and three shallows. Often the brood volume is more than that - up to two shallows more (a deep and five shallows.) Recycling that volume at 1600 eggs per day is not possible.

Call me a liar if it suits your purposes, but I am certain I have seen brood volumes that would require a queen to lay at least 3000 eggs per day. Inspection of those oversized brood nests indicated the queen was keeping up with the demand. Perhaps the capability of the queen to exceed normal requirements is just another safety margin as are built into all survival traits of our bees.

If I were going to investigate maximum queen laying rates, I would check the rates of the new supersedure queen. Depending on how early in the supersedure process the old queen is terminated, substantial empty brood cells accumulate. The colony superseding will hold essentially the whole brood nest open pending the maturing of the supersedure queen to egg laying capability. The supersedure queen, playing catch up, can exceed the 3000 rate. She might start slowly, but in a few days she can move out, smartly. The enterprising post-grad student could pick up this gauntlet and slap me about the head and shoulders with it. If he proved my observations are valid, he could make a name for himself.

With the normal ups and downs of seasonal brood volumes, it is difficult to estimate the total eggs laid in one season, or the difference between standard management and nectar management.

At this point, I'll withhold judgment on whether or not early supersedure of the two swarms described above was caused by the queens running out of lifetime capacity. I have no way to evaluate the amount of sperm stored by the well-mated queen. Seems I've seen a million plus in the literature. A rough count of local brood volume for the season, when checkerboarded, doesn't reach those numbers, but I'm not dismissing it as a possibility.

For nine months of the year the CBed colony brood volumes are similar to the reversed double deep. The extreme differences are primarily seen during the swarm prep through early main flow. That period spans the prime swarm issue season. Checker Boarding accelerates brood nest expansion and induces continued expansion until three weeks prior to "main flow." But even twice the brood volume at the peak doesn't seem like a big impact on the season-long total. That certainly would not explain the longevity of the queens with standard management.

Supersedure, when CBed, does occur in that peak demand period, or shortly thereafter. It is possible that the colony decision makers perceive the strain on the queen in keeping up with demand and opt to supersede. We'll leave it to the experts to determine if they ever get around to caring about honey production again.

This submittal shouldn't be construed as an attack on the concepts of Dr. Farrar. He was on our side, and his investigations and recommendations were oriented to increasing honey production. In retrospect, I think he shaped my thinking on honey production. I highly recommend his eight-part discussion of the details for anyone interested in making more production per colony. *American Bee Journal* republished his 1973 series starting with the January 1993 issue - Title: Productive Management of Honey - Bee Colonies .•

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BEE FORAGE PLANTS

A monthly column by Arthur Gruver
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As we enter the new year, 2009, it is important to consider the availability of honey bee food plants accessible to our apiaries.

Several lists of bee forage plants are available, which list not only the plants, but also bloom times: see www.msbeea.org On the home page on the left side choose “Article on Bee Gardening” by Chris Costa, 2008; also under Papers and Articles is Notes and Calendar on Bee Forage by the Gruvers, compiled for a talk in 2006, You can also contact me for a printed list based on a talk given to EAS in 2000.

Dr. James Tew’s Fact Sheet “Some Ohio Nectar and Pollen Producing Plants” is at www.ohioline.osu.edu/hyg-fact/2000/2168.html and this is part of his introduction: “Honey bees and plants have a special relationship. Each benefits the other. Flowering plants provide food for honey bees; in turn, bees provide pollination for many plants, enabling them to reproduce.

Honey bees visit flowers to collect pollen and nectar for food. Pollen is essential to bees because it is their only natural source of protein. Without it, colonies would be unable to produce new bees and would eventually die. Nectar is the carbohydrate portion of the honey bee's food and is the raw material of honey. Bees convert nectar into honey by adding an enzyme which breaks down the complex sugars into simple sugars. During this time bees reduce the moisture content of nectar to less than 18 percent by fanning air through the hive. Honey bees also require water in addition to pollen and nectar for their survival.

To produce honey successfully, you must have your honey bee colonies at peak strength when the major nectar producing plants in your area begin to bloom. To properly manage honey bee colonies so that their populations will increase and peak at the correct time, you must have a working knowledge of the nectar and pollen producing plants in the vicinity of your apiaries. This knowledge will enable you to determine when to stimulate brood production, add supers, use swarm control measures, harvest honey, re-queen, prepare colonies for winter, and locate the most profitable apiary sites. If left on their own, most honey bee colonies don't begin increasing their populations rapidly until the major nectar flow starts. As a result, the nectar flow is usually over before the colonies are strong enough to produce a surplus of honey.”

In January, our observations have identified only one plant that blooms and attracts bees in northern Maryland—the Winter Aconite (Eranthis hyemalis.) Whenever the weather is warm enough in January to allow the bees to be out flying, it is warm enough for the Winter Aconite to bloom. This plant, a small tuberous perennial about an inch in diameter, has solitary yellow flowers with six petals, and the honey bees enjoy visiting this early pollen source. The bulbs for this plant can be found in many catalogs listing bulbs. They spread and form a ground cover in late winter and early spring.

Vines For Bees

Connie Krochmal
Bee Culture Nov 2008

Vines are valuable plants for the bee garden. Depending on the species, these can be woody or herbaceous.

Most vines need a support, such as a trellis. Don't allow them to strangle trees and shrubs. Vines can be grown as ground covers.

Among the suitable vines for bees are the following.

American bittersweet (Celastrus scandens)

Also known as waxwork and shrubby bittersweet, this species is native to the East. Its range extends westward to New Mexico. Avoid growing the introduced types as

they're invasive in a number of states.

American bittersweet is a vigorous, deciduous, twining vine that reaches 12 to 20 feet in height. As a ground cover, it can spread rapidly across the soil.

Bittersweet has shiny, oblong, alternate leaves, up to five inches long. This becomes bright yellow during the Fall.

The female plants produce huge, terminal clusters of dark yellow fruits with vivid, orange-red arils in the Fall.

Though there are some exceptions, the male and female flowers tend to be on separate plants. To get fruits, one plant of each kind is needed. If garden space is limited, put both in the same planting hole.

Typically, the green blooms are small and inconspicuous. The blossoms appear in terminal clusters. They start in June and continue for several weeks. While both kinds of blooms yield nectar for bees, only the male flowers will provide pollen.

Bittersweet is easy to grow, requiring little attention.

Full sun is best.

American bittersweet is recommended for zones three through eight.

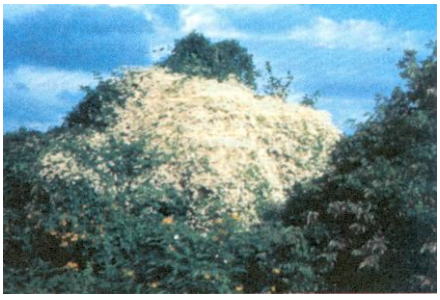
It prefers a reasonably moist soil. This adapts to a range of pH from acidic to slightly neutral.

Clematis (Clematis spp.)

Some clematis vines are woody, while others tend to be herbaceous. All vining types of clematis are good sources of nectar and pollen. Members of the buttercup family, there are over 100 species and varieties in cultivation. Though some are evergreen, others are deciduous.

The hardiness can vary from one kind of clematis to another. The hardiest species are suited to zones two or three. These vines prefer an alkaline to neutral soil. They do best in partial shade.

Having no tendrils, the vines attach their leaf stalks to the support provided. The height of clematis can vary considerably. While the smaller vines are only six to eight feet tall, the most vigorous reach 30 feet in height. Clematis has opposite foliage that is often compound. The blooms range in size from one to eight inches in diameter, depending on the type being grown and the growing conditions.



Clematis virginana

For bees, choose smaller flowered varieties. The blossoms can occur either singly or in clusters.

Clematis flowers, which are sometimes fragrant, consist of large, brightly colored sepals. They lack true petals. Usually, the blossoms open during the late Spring and Summer.

Several clematis species are particularly suitable for bees. These include Armand clematis (Clematis annandill, which is hardy to zone seven. This grows to eight feet tall.

Anemone clematis (Clematis montana) is hardy to zone six. This reaches 15 to 20 feet in height.

Sweet autumn clematis (Clematis paniculata) is one of the hardiest - to zone four. Its blooms open from late Summer throughout the Fall.

Clematis vines prefer an alkaline to neutral soil. Most of these vines will need a regular pruning every couple years. Typically, they do best in partial shade. These prefer a pH between 4.5 to 7.0.

Bees collect both nectar and pollen from clematis blossoms.

Clematis

Chilean glory flower (Eccremocarpus scaber)

Related to the trumpet creeper, this climbing woody plant is hardy to zone seven. Elsewhere Chilean glory flower is grown as a climbing annual. This evergreen blooms the very first year if the seeds are started early indoors. Transplant during the Spring after all danger of frost has past.

This vine reaches six to twelve feet in height. Native to South America, it climbs by means of tendrils. The opposite leaves are doubly compound with the individual leaflets being about an inch long.

Chilean glory flower bears small, orangish-red blooms throughout the Summer months. Tubular with a slightly irregular shape, these are over an inch long. They open in terminal clusters. Later during the Fall, the inflated fruit pods mature.

This species needs full sun. Most any kind of soil is suitable so long as the spot is well drained.

Chilean glory flowers provide nectar for bees.

Climbing hydrangea (Hydrangea anomala subsp. petiolaris)

Though most hydrangeas are shrubs, this one is the exception. It is recommended for zones five through eight. The large, shiny, dark green leaves are notched. These are two to four inches long.

This clinging vine can have stems that reach 60 to 80 feet in length. Climbing hydrangea attaches by means of root-like structures called holdfasts that emerge along the length of the stem.

Climbing hydrangea blooms heavily for a long period during June and July. The individual white flowers are about 1 v.. inch across. These open in large, flat clusters that can be up to eight inches wide. Both inconspicuous fertile and showy sterile blossoms are borne on the same clusters.

Though it is very slow growing initially, this increases once the plant is well established. It can be grown from seed. However, the resulting plants will take years to bloom.

Climbing hydrangea requires very little attention.

Preferring full sun, it thrives in a moist, well drained

soil. A pH between 3.5 and 7.0 is suitable.

There are several related vines that are similar to climbing hydrangea.

Japanese hydrangea vine (Schizophragma hydrangeoides) is Winter hardy to zone six. It also uses holdfasts to cling to its support. This species has flat stems. It blooms somewhat later than climbing hydrangea. The blooms open in drooping clusters. These have a single large sepal. Compared to climbing hydrangea, this vine has coarsely toothed, dull green foliage with wider teeth.

Chinese hydrangea vine (Schizophragma integrifolium) isn't quite as hardy - only to zone seven. The foliage is quite large - four to eight inches in length. The edges can be slightly toothed. The blossoms open in huge clusters up to a foot across.

All of these species are good sources of nectar for bees.

Morning glory (Ipomoea purpurea)

Both the wild and cultivated morning glories are excellent bee plants.

Originally introduced from the tropics, the common morning glory has naturalized in much of the U.S. A soft stemmed, twining vine, it is sensitive to frost. The plant grows to 15 feet in height. With hairy stems, this has heart-shaped foliage that is sometimes lobed.

Morning glory blossoms open throughout the Summer into early Fall. The funnel-shaped flowers come in a range of colors, including white, blue, red, bluish-purple, and deep purple. Some even have strips. Morning glories have white throats.

As a garden plant, this vine is easy to grow from seed. Plant after danger of frost is past. Soak the seeds overnight before sowing.

Needing full sun, morning glories are carefree plants that require little attention. This vine prefers a rich, well drained soil. Usually grown as an annual, it can become a perennial in warm climates.

Though the blooms can be quite large, they're attractive to bees, which collect nectar and pollen from them.

The morning glory can yield a good surplus of honey, around 80 pounds per colony. This honey is considered excellent quality. Water white, it has a delicate, pleasant flavor.

Passion flower (Passiflora spp.)

Some of these vines can be evergreen. Hardiness can vary somewhat from one species of passion flower to another. While some are Winter hardy to zone six or seven, others tend to be rather tender.

Native to the New World, these vines climb by means of tendrils. The height can vary greatly, depending on the species. Some are 15 to 30 feet tall. Passion flower vines can have winged stems.

The attractive, alternate leaves are four to six inches long. With wavy margins, they can be entire or compound. These often have large lobes. There can be vivid purple markings as well.

The floriferous passion flowers are known for their large, intricately ornate blooms. Some of the passion flowers have scented blooms. These are often white, red, or yellow.

With five petals, the blossoms range from two inches to four inches in diameter. These open in clusters containing two to three blooms. They appear all along the stems. Their notable features include long, decorative filaments and spectacular stamens that form a central column, which is often fringed.

Many of the passion flowers produce fleshy, edible fruits, which can be 10 inches in length.

These plants are propagated by seeds and cuttings.

Several species can be found growing wild. Maypop passion-flower or wild passion flower (Passiflora incamata) is native as far north as Virginia. Its range extends westward to Texas. This is hardy to zone six. With purplish markings, the whitish-pink blooms are two inches across. This species blooms from mid-summer through the Fall.

Yellow passion flower (Passiflora luteal is native to the East with its range extending northward to Pennsylvania, and westward into Texas. This species is recommended for zones six through nine. It has yellowish-green blossoms.

Passion flowers need full sun. They'll grow in most any rich, well drained soil.

The flowers provide bees with nectar and pollen.

Wisteria (Wisteria spp.)

All of the cultivated and native wisterias are attractive to bees. For best results, buy grafted plants. Those grown from seeds can take many years to bloom.

Native species of wisteria can be found throughout much of the country, particularly the East and Midwest. There are about ten species with the Japanese and the Chinese being the most popular cultivated kinds.

Hardiness depends upon the species being grown.

While Japanese wisteria (Wisteriajloribunda) is the most hardy - to zone four, Nippon wisteria (Wisteriajaponica) is only reliably hardy to zone seven. Most of the others are fine for zone five.

American wisteria (Wisteria frutescens) does well in zones seven through nine. This is native to the Southeast. Its range extends westward to Texas. It blooms throughout the Summer.

Chinese wisteria (Wisteria sinensis) is suitable for zones six through nine.

Kentucky wisteria (Wisteria macrostachya) is native from Kentucky into Tennessee, Illinois, and Missouri all

the way to Texas. It is among the hardiest wisteria, being suited to zones five through nine. Especially floriferous, this species blooms several weeks later than most other kinds.

Silky wisteria (Wisteria venusta) is recommended for zones six through nine. Related to Chinese wisteria, this has heavily scented white blooms.

Over a period of years, wisteria vines can become quite huge. Like other legumes, these plants have alternate, compound leaves with the number ofleafiets varying from one species to another. Some species twine from left to right, while others go right to left.

A member of the pea family, wisteria has large, attractive, showy, bean-like blooms. These drooping flower clusters can range considerably in length, depending partly upon the growing conditions. The blooms can be white, lilac, or pink. Sometimes, wisteria flowers will have a striking fragrance.

Because double-flowered varieties are unsuitable for bees, read the descriptions before buying plants.

Generally, wisteria will bloom in late Spring - mostly in late Mayor early June for about three weeks or so. Sometimes, there is a second flush of flowers several months later.

Wisteria is suited to most soils from light sand to rich loam. It adapts to a range of pH from 4.5 to 7.0. This vine thrives in a moist, well drained spot in partial shade.

These vines need full sun. Other than pruning and training, they require no special care. Wisteria can be trained as a tree standard. This involves staking the plant and pruning the tops each year so that the stem eventually resembles a tree trunk. The easiest approach is to give the vine some means of support, such as a trellis or fence, and let it ramble.

Wisteria blossoms provide bees with nectar and pollen. They tend to yield more nectar when the weather is warm.

Connie Krochmal is *an award winning garden writer and a beekeeper in Black Mountain, South Carolina.*

QUESTION OF THE MONTH?

What New Year's Resolution regarding beekeeping are you making for 2009?

David Papke:

1. Continue to offer the finest honey for sale. Increasingly, my customers want local, unheated, unfiltered (raw) honey. They are becoming better educated not only about the qualities of honey and its processing, but also about the plight of honeybees. I think they want honey not only that meets their requirements, but also honey purchased from a responsible, local beekeeper.
2. Produce more comb honey. There is a strong demand for comb honey, but I have a more personal reason for wanting to produce it. The challenge. Comb honey, truly fine comb honey, is a real test of the beekeeper's craft. I have admired the work and writings of Richard Taylor for many years and he is a strong advocate of comb honey beekeeping. I recommend his books to anyone involved in beekeeping at any level. He is simply the best.
3. Find a new intern/apprentice. Last year I had the wonderful experience of having a student (Eva Zaret) from Friend's School in Baltimore intern with me for the month of May and into June. If I had to pick any month of the year to experience beekeeping, it would be May - the colony build-up, the honey flow, the swarms, etc. - Eva saw it all and her enthusiasm and curiosity was contagious and exhilarating. My busiest time of the year was also the most fun.
4. Learn more about what I can do as a solitary beekeeper to aid the plight of honeybees at large, through my management techniques, knowledge and advocacy.
5. Oh yeah, the mouse guards, too.

Selwin Gray:

Become a Natural Beekeeper by following Ross Conrad's approach to Organic Beekeeping.

Lloyd Snyder:

1. Stay ahead of the bees and the calendar this year (i.e. management & beekeeping objectives)
2. Increase my production of queens.
3. Devote more time & resources to the National Native Pollinator Program.

David Gill-Boucher:

My resolution for 2009 is to use better pest management techniques on a regular basis that involve no chemicals.

Steve McDaniel:

My plan for 2009 is to work harder to get the word out about beekeeping. I will be giving more talks this year to garden clubs, nature centers, and other groups, and I will be teaching two complete beginners' short courses, one at Irvine Nature Center in Owings Mills and one at Marshy Point Nature Center in Chase (on the Bay, at the Baltimore-Harford County line). As MSBA President, I am working with the University of Maryland to sponsor an advanced course, which is still in the planning stage.

QUESTION OF THE MONTH FOR FEBRUARY, 2009

What are you doing in January and February to prepare for the spring beekeeping season?

Please send your answers to Barbara Gruver at abgruver@verizon.net

Snow Cancellation Policy

In case of snow or ice on the meeting date, listen to WBAL radio before 7:00 PM. If Baltimore County's snow emergency plan is in effect at 6:00 PM, then the meeting is automatically canceled.

IMPORTANT PHONE NUMBERS

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Jeanne Deignan-Kosmides V. Pres.	**410-833-6067**
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Oregon Ridge Nature Center	**410-887-1815**
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Lloyd Snyder, Editor	**410-329-6671**

Editors E-Mail - lrsnyder@clearviewcatv.net

Be sure to check out CMBA's web site at www.cmbeea.org

Please check the "Dues paid through" line above your name on the mailing label below. If it says "Dues paid through 2008" fill out the included form and remit your dues for 2009.

Lloyd Snyder – Editor
4747 Norrisville Road
White Hall MD 21161

DATES TO REMEMBER

General Meeting – January 6, 2009 – at Oregon Ridge Nature Center. 7:30PM. During the January meeting we will be discussing all things beekeeping as well as putting together ideas for the coming year. Bonus points for creativity.

Board Meeting – January 19, 2009 – 7 PM at Oregon Ridge Nature Center.

Beekeeping Short Course – The 2009 Short Course begins on March 9 this year at 7 PM. The classes will be held in the auditorium of the Oregon Ridge Nature Center. For more information, the complete class schedule or an application go to www.cmbeea.org.