

THE GARDENER

Newsletter of the Bowie-Crofton Garden Club



The aims of the Bowie-Crofton Garden Club shall be to promote interest in and develop skills in gardening through cooperation, joint efforts, and good fellowship.

October 2009

Next Monthly Meeting By *Neil Potash*

The next meeting of the Bowie-Crofton Garden Club will be held on Tuesday, October 27th at 7:30 pm at the Bowie City Hall, multipurpose room. The speaker will be Matthew Perry, author of *Churchill, Manitoba: Birds, Belugas, and Bears*. Matthew is a Marine Scientist at the Patuxent Wildlife Reserve. He is a good friend, who enlisted my daughter while she was in Bowie High School to do animal samples before they dug Lake Remington. He has spoken to the club many years ago with great slides and much enthusiasm. He has given a similar presentation all over the world. The last time I talked to him he was going to Japan for a similar talk. Matthew is a natural explorer, who has traced the migration of ducks throughout his life. Hope you can come.

Presidents Comments by *Jesse Terres*

My wife and I are a couple of news junkies, relatively speaking of course. We spend an hour or so in the mornings and an hour or more in the evenings watching the news on TV. In addition we receive several newspapers, some by choice and a couple for free. I usually read The Washington Post first beginning with the Metro section checking the weather predictions for conflicts with local broadcasting, then page one and so forth for local news and the number of murders the night before, and ending with the obits.

My wife can't understand why I'm so interested obituaries. Well, for one reason since we've decided to live to 100 I like to see what our competition has been. We have a lot of interesting people in our country and there is a lot of history contained in their obituaries, things I would never have known otherwise and besides, I'm a nosy person.

For example in both The Washington Post and the Wall Street Journal were obituaries about Norman E. Borlaug, 1914-2009. He was "an American plant pathologist who won the Nobel Peace Prize in 1970 for starting the "Green Revolution" that dramatically increased food production in developing nations. . . ." Barely known in America, he was well known in nations susceptible to hunger and famine. "From the 1970s until his death, he increasingly that took the politically incorrect view that environmentalists were hampering world food production by indiscriminately attacking the use of chemical fertilizers and pesticides.

“They claim that the consumer is being poisoned out of existence by the current high-yielding systems of agricultural production and recommend we revert back to lower-yielding, so called sustainable technologies,” he said in a speech in New Orleans in 1993.

He said it is not possible to turn the clock back to the 1930s, when the population of the world was 2.2 billion. World population was estimated at 5.6 billion in 1995 and projected to 8.3 billion in 2025. Since I’ll only be 91 in 2025, on my way to 100, I’m certain I’ll get to see how things are then. One thing for certain is that our fields will not be fertilized entirely with manure and compost, there isn’t enough of it now, and growing “organically” will be even more corrupted.

In 1966-1968 we were in the Philippines and frequently when driving from Subic Bay to Clark Air Base would see “IR-8” signs on the edge of the rice patties. The advantage of the IR-8 rice was that it was stiffer and considerably more productive than the native rice because it did not collapse during the typhoons. We heard that the locals didn’t care for its flavor, but I suspect by now have been converted. Little did we know, but I’ll wager that Norman Borlaug was responsible for IR-8.

Meeting Minutes, September 29, 2009

The Tuesday September 29th meeting of the Bowie Crofton Garden Club was held at the Bowie City Hall.

Jesse Terres, President called the meeting to order at 7:30 pm.

The August Minutes were unanimously approved.

Program:

Neil Potash, VP Programs introduced the speaker, Faith Jackson. Mrs. Jackson is a long time Master Gardener and has interests in landscape architecture and garden design. In fact, she has authored a book on tropical landscape architecture. She addressed the issue of bringing your summer potted plants inside. Faith was a very informative and entertaining speaker and provided many personal gardening tips. She emphasized three points that she covered very well: 1) what to bring in the home in the fall 2) how to prepare the plants for the indoors and 3) where to put them in your home for the winter. She is a resident of the Collington Life Center in Mitchellville, MD and writes a monthly gardening column for the Collington newsletter. Faith was a very engaging speaker, very articulate and humorous and gave us a goal to strive for since she is 90 and enjoys all the seasons of gardening!

Business Meeting:

Committee Reports-

Membership – Rose Arslanian introduced a new member, Karen Anadol. Welcome Karen! Each member should strive to recruit a new member to the garden club.

Hospitality – Barb Eberstein volunteered to be the new Hospitality Chair. Her new assistants include: Bertha Houchens, Jean Magram, Gaye Williams and Karen Woolfley. The Christmas party will be held at St. Matthews on December 6.

Treasurer – Karin Banta provided a report. The current Garden Club balance is \$3,482.67.

Programs – Matthew Perry, a marine biologist from Patuxent Wildlife Refuge will speak on Arctic Wildlife. The title of Perry’s talk is “Manitoba, Ontario, On the Hudson Bay, Birds, Belugas and Bears.”

Field Trips – Kathleen Beres is following up with Ellen Brous to see if the Club has reserved any field trips.

Garden Tour – There will be a garden tour at Jesse Terres’ home on Saturday, October 24 from 10am to 3pm. We will be treated to see his gorgeous Chrysanthemums in bloom!

Newsletter – Please send articles to Don Sminkey. The deadline is the 8th of each month.

Sunshine Chair – Barb Eberstein reported that Hans Hirschmann is out of the hospital.

New Business

Programs – Neil Potash discussed his \$300 budget that is set aside for cash honorariums to speakers. He requested authority to purchase T-shirts to give to speakers. This request will be discussed at the next Executive Board Meeting.

Membership – Ellen Leshinsky suggested that new members receive something like a packet of Garden Club information. Rose Arslanian added that in the past new members were interviewed for the Club newsletter. These suggestions will be discussed at the next Executive Club Board meeting.

Door prizes were awarded and donated plants were given away to new homes.

Adjournment – The meeting was adjourned at 9:05.

Respectfully submitted, Kathleen Beres, Secretary

Executive Board Meeting Minutes – October 7, 2009

Jesse Terres, President called an executive board meeting of the Bowie Crofton Garden club at his home on October 7th at 7pm. The meeting adjourned at 9:30pm.

Attendees included Jesse Terres, President, Dorothy Bice, Public Relations, Karin Banta, Treasurer, Kathleen Beres, Secretary, Neil Potash, Programs and Joan Walker, Plant Exchange.

New Members -It was decided that each new member will receive a packet of information that will include the By-laws, Welcome letter, Schedule of meetings, Social events, Membership list and Current Newsletter. At this time, we need to postpone interviewing new members for the newsletter until we have a permanent membership Chair to take on this responsibility.

Committee Reports – All reports will be given from the podium so that everyone can hear the report. Please refrain from talking while a member is giving a report.

Plant GiveAway – It was decided that the donated plants will be given away at each meeting as in the past. There will be no selling of plants at the monthly meetings.

Gift Exchange – A clipboard will be passed at each meeting to volunteer to bring in a gift at least once a year. If you don’t get the clipboard at the meeting, please see Joan Walker.

Plant Tour – Jesse postponed the Plant tour at his home from October 10 to October 24 from 10am to 3 pm. The chrysanthemums were not ready to bloom so it has been rescheduled for Saturday, October 24. Please mark your calendars.

Honorariums – The Board decided that speakers will only receive cash honorariums. No t-shirts will be given to speakers. The Program Budget only allows for cash honorariums, no books, no t-shirts or other give-aways.

Sunshine – It was suggested that Barb Eberstein send a monthly announcement to the newsletter letting members know of any major life events of fellow members. It would be nice to know of members' illness, deaths in family etc. as well as congratulatory news!
Members need to notify Barb so she can send member's a card and notify the newsletter.

Budget – It will help the budget immensely if each member would recruit a new member. We're also looking to a successful Plant sale in 2010 to augment the budget.

Respectfully submitted, Kathleen Beres, Secretary

Treasurer's Report October, 2009

By *Karin Banta*

No report submitted

Membership

By *Donald Sminkey*

Note: Since the resignation of the V.P. of Membership, Lynne Snyder, Don is maintaining the membership database, and Rose Arslanian is filling in for Lynne until a new V.P. for Membership is elected. All changes to the membership list should be sent to Don at smink34@nc.rr.com with a copy to Rose at rjarlanian@att.net. The opinions expressed herein belong to Don.

Here are the latest membership statistics, including the new members: Total families with paid dues for 2009--2010: 74. Of these 74 families, there are 10 spouses for a total membership of 84.

I've heard some rumors that some members think that the BCGC newsletter should be shortened to save money. But let's look at a more reasonable way to save money. Only 29 of our families receive an electronic version of the newsletter. That leaves 45 families that are mailed the newsletters each month. But only 19 families have no Internet access, so we should be only mailing 19 newsletters. If the other 26 people want a hard copy, they can print their own copy from the website or from a PDF file sent via email. This would result in a considerable savings of money each year.

I also do the website for the Newcomers Club of Raleigh (<http://www.newcomersclubraleigh.org>) . This is what this club does: If a member has an email address, then they get the newsletter via email each month in PDF format. If they want a hard copy, then they print their own. The newsletter is also available on their website. Only those with no email address get a mailed copy. Of the 261 members in this club, only about 35 get a mailed copy each month. This is the proper way to distribute newsletters. A quilting club in Raleigh also distributes their newsletter in this fashion. It saves a ton of money each year, and nobody complains.

I will never understand why the BCGC does not distribute their newsletter in this fashion. Some officer in the BCGC should have the courage to make this decision and stick to it!

Let's look at the cost to mail the newsletter to one person per year. Print cost per newsletter = \$0.63 and postage = \$0.44 for a total of \$1.07 per copy. For 11 newsletters per year the cost is \$11.77. The \$10 dues does not even cover the cost of the newsletter. So the dues should be raised to about \$15.00. Since the club is mailing out 26 newsletters to people with an email address, that is an unnecessary cost of \$306.02.

Conclusion: In order to save a ton of money, the dues should be raised to \$15 and the BCGC newsletter should be distributed by sending a PDF file to each member with an email address, which would save the club about \$306 per year. Reducing the size of the already scant 8--page newsletter is not the correct approach. Another option to consider (that is used down here) is to charge an extra \$5.00 for members that have no email address and have to have their newsletters printed and mailed.

Coffee grounds— will they perk up plants?

By *Linda Chalker-Scott*



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Here I am, a Washington native living in Seattle, and I don't drink coffee (Earl Grey tea is my brew of choice). Nevertheless, I do most of my writing in a coffee shop where coffee and coffee byproducts surround me—most notably the bags of used grounds that are free for the taking. Many people use them as part of their compost pile, but increasing numbers of people are using them straight up as mulch, claiming they repel cats, kill slugs, prevent weeds, aerate and acidify the soil, provide nitrogen, attract earthworms ... the list goes on. Since I'm an organic mulch advocate, I investigated the science behind using coffee grounds in the garden and landscape.

There's actually a lot of research out there on reusing coffee wastes—but much of it relates to what's generated through coffee production and coffee bean harvesting. These wastes include coffee pulp and peel (from the coffee fruit or "cherry"), coffee hulls and husks (covering the coffee seed or bean), and coffee effluent (the waste water used in several of the stages of coffee manufacture).

Since most of us don't have access to these coffee byproducts, and because they are physically and chemically different from the beans, I only reviewed articles that examined used coffee grounds.



Research

From coffee shops to the instant coffee industry, spent coffee grounds can be generated in massive quantities. Enterprising researchers have investigated using coffee dregs for:

- growth media for lab insects and earthworms;
- silage and herbal remedies for livestock, including cattle, buffalo, sheep, pigs, and chickens;
- biofuel and biogas production;
- composite building materials;
- controlling mosquito larvae (albeit with variable success);
- treating wastewater;
- a natural antioxidant for treatment of diabetes and cardiovascular disease; and
- compost and mulch materials for gardens and landscapes.

Before discussing these last studies, let's consider the chemistry of your used coffee grounds.

Chemical composition

Not everything contained in a coffee bean makes it into your morning coffee. Nitrogen-rich proteins needed for seed germination and growth comprise over 10% of coffee grounds. In fact, the carbon-to-nitrogen ratio of coffee grounds can be as low as 11:1, an ideal ratio for plant and soil nutrition. Since coffee is extracted in water, most of the hydrophobic compounds, including oils, lipids, triglycerides, and fatty acids remain in the grounds, as do insoluble carbohydrates like cellulose and various indigestible sugars. Structural lignin, protective phenolics, and the wonderful aroma-producing essential oils are also left over from the brewing process. It's this last group of chemicals that are reported to have antioxidant and antimicrobial properties.

Decomposition

Over the course of several months, specialized bacteria and fungi break down the various chemical components of coffee grounds. Some larger consumers, including earthworms, are also able to use this food source. The fact that earthworms pull coffee grounds deep into the soil may account for noted improvements in soil structure such as increased aggregation. Humic substances, which are important chemical and structural soil components, are produced through coffee ground degradation. Carbon-to-nitrogen

ratios change as well, generally starting out a bit higher than ideal (e.g. 25-26) and decreasing to 21, 13, 11, or even 9.4 in a year's time.

Less straightforward are the changes in pH that occur during decomposition. A commonly held assumption states that coffee grounds are acidic, but this does not hold true experimentally. While two studies on coffee ground composting reported mildly acidic pHs of 4.6 and 5.26, others have measured neutral (7.7) to somewhat alkaline (8.4) pH levels. One researcher found that the pH of soil treated with coffee compost increased after 14 to 21 days of incubation, gradually decreasing thereafter. Obviously the pH of decomposing coffee grounds is not stable and one shouldn't assume that it will always, or ever, be acidic.

Disease suppression

As they decompose, coffee grounds appear to suppress some common fungal rots and wilts, including *Fusarium*, *Pythium*, and *Sclerotinia* species. In these studies, coffee grounds were part of a compost mix, in one case comprising as little as 0.5 percent of the material. Researchers suggest that the bacterial and fungal species normally found on decomposing coffee grounds, such as non-pathogenic *Pseudomonas*, *Fusarium*, and *Trichoderma* spp. and pin molds (Mucorales), prevent pathogenic fungi from establishing. A similar biocontrol effect was noted on bacterial pathogens including *E. coli* and *Staphylococcus*

spp., which were reduced on ripening cheeses covered with coffee grounds. Currently, disease suppression from coffee grounds has only been demonstrated under controlled conditions on a handful of vegetable crops, including bean, cucumber, spinach, and tomato. Their efficacy in gardens and landscapes is unknown, as is any protective activity on other plant materials such as trees or shrubs.

Effects on plant growth

Given their antimicrobial activity, it's not surprising that attempts to cultivate mushrooms in coffee grounds have been variable and species-specific. Likewise, their effects on plant growth are unpredictable.

Coffee ground composts and mulches have enhanced sugar beet seed germination and improved growth and yield of cabbage and soybeans. It's been an effective replacement for peat moss in producing anthuriums. Increases in soil nitrogen as well as general mulching benefits, such as moderating soil temperature and increasing soil water, are proposed mechanisms for these increases.

Not all get a jolt

Not all plants get a jolt from coffee grounds. Seed germination of alfalfa (*Medicago sativa*) and white and red clovers (*Trifolium repens* and *T. pratense*) was inhibited by water leached through coffee grounds. Growth of crops such as Chinese mustard (*Brassica juncea*), komatsuna (*Brassica campestris*) and Italian ryegrass (*Lolium multiflorum*) were all inhibited by coffee grounds, as was that of ornamentals including inch plant (*Tradescantia albiflora*), geranium, and asparagus fern. One investigator speculated that toxic substances released from decomposing coffee grounds were responsible for their inhibitory effect. This effect also reduces weeds, and perhaps in a landscape dominated by large shrubs and trees, only germinating seeds and seedlings would be injured. But as there has been no experimental research on coffee grounds and woody plants, this is only speculation on my part.

Recommendations

Given the incomplete and conflicting scientific data so far, the scientific jury is still out reviewing the evidence. Nevertheless, I do feel comfortable in making some general observations and recommendations for those of you who would like to try coffee grounds as part of your compost pile or as a mulch:

In compost

- Percentages of 10 to 20 percent of total compost volume have been reported as optimal for compost quality and effectiveness, while over 30 percent can be detrimental.
- Only small amounts of coffee grounds are required for effective disease suppression. Therefore, I recommend using no more than 20% by volume of coffee grounds in a compost pile. A diverse feedstock will ensure a diversity of microorganisms.
- Don't assume coffee grounds will make an acidic compost; pH levels will undoubtedly change over time.

For mulching

- Coffee grounds are finely textured and easily compacted.
- Compacted coffee grounds create a barrier to moisture and air movement, especially when applied in thick layers.
- Therefore, I recommend against using pure coffee grounds as a mulch; instead, try using a thin layer (no more than half an inch) of coffee grounds and cover with a thicker (four inches) layer of coarse organic mulch like wood chips.

Executive Committee			From the Editor Donald Sminkey All members of the Garden Club are welcome to write an article on a gardening-related subject. Please send via e-mail to: gardener@bcgardenclub.org. Include "B-CGC" or "Garden Club" in the subject heading; or mail to: Donald Sminkey, 508 Otway Road, Wake Forest, NC 27587 Deadline, November issue: Nov. 8, 2009
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