



Friends of the Central Experimental Farm

Winter 2012 Newsletter

Volume 24 No. 1

Barry Flahey - Botanical Artist at the Farm



Ogeechee Lime (*Nyssa ogeche*), by Barry Flahey

Timing can be critical for the botanical artist. Barry Flahey, Scientific Illustrator, Agriculture and Agri-Food Canada (AAFC), was asked to draw the 'four o'clock flower' (*Mirabilis jalapa*) and waited and waited in the greenhouse, but it never bloomed. One evening, around 6 pm, he was working late, happened to look across and saw the plant in full bloom. "I guess it was in a different time zone," he says.

Barry is the Farm's sole plant illustrator and spends only half his time on plants; the other half is devoted to insects. The only other scientific illustrator in AAFC at Ottawa is Go Sato, and he is full-time in entomology.

Keeping up with living plants

When Barry was offered the chance in 1995 to work on plants, he was filled with trepidation. Having worked mostly with

dead insects, he was not sure he could keep up with living plants. He took the opportunity and soon enjoyed it so much that he was wishing he could have started his career over again in botany.

Recently, one particular plant in the greenhouse has presented a challenge - the Kudzu (*Pueraria lobata*), also known as "mile a minute" plant or the "vine that ate the south," because of its overwhelming growth in the southeastern U.S. It has now been found in southern Ontario and Barry was asked to draw this noxious weed. Not only did he have to work fast, but also he found out that the plant grows in slightly different ways in different locations. After completing a drawing, he had to redraw it accentuating the lobes on its leaves.

From aircraft to insects and plants

Barry was a technical illustrator in the Royal Air Force in England for 10 years attending art school part-time. He came to Canada in 1970, worked for Pratt and Whitney in Montreal, and then moved to Ottawa in 1974 to the Department of National Defence (DND), where he drew anything the Canadian armed forces wanted to have in its manuals. For example, he remembers drawing a 9 mm Browning pistol and all its components, and being surprised that it had never been drawn since the original design in 1932.

While at DND he was seconded to Agriculture on a project to draw noxious pests (scorpion, black widow spider, mosquito), which Canadian forces personnel might encounter on foreign postings. The existing DND photographs were unsatisfactory, and to do the job correctly, he needed access to the Farm's insect collection and microscopes. He loved the work and collected many of the specimens himself. When an illustrator at



Barry Flahey

Courtesy of Barry Flahey

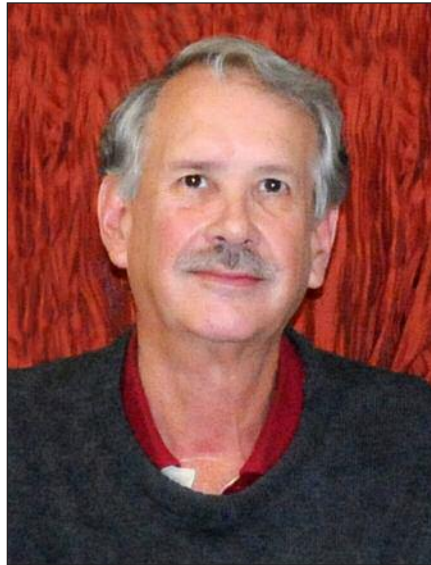
Continued on Page 3

President's Message

It was a challenging year in 2011 for our gardening teams, but there were many satisfying experiences. Most plants started well despite a cool and late spring. Roses, lilacs, daylilies, peonies, annuals and perennials all had a good showing during early summer; however, many blooms and growth diminished in a dry later summer and with the persistent Japanese beetles. Fall lasted longer than any I can remember in Ottawa.

The Merivale Shelterbelt team were pleased to get water supply. The new silo-shaped Shelterbelt shed provides a solar-powered water source as well as space for tools. The plaques at the Shelterbelt offer a wonderful opportunity to express your love for the Farm and/or to remember someone or an event. In September, amidst perfect weather and a large turnout, we acknowledged 12 new donors and their families and friends.

Our working relationship with AAFC continues to prosper and I thank AAFC staff for their ongoing support of the Friends of



Chuck Craddock

the Farm. With their guidance, we continue to help them maintain and preserve the Ornamental Gardens, Arboretum and Shelterbelt.

I would also like to thank our members for their ongoing support, and our 2011 volunteers for their many hours of hard work. We will be closely monitoring our volunteer numbers and attendance next season, especially with the elimination of bus Route 3. This was a setback for many of our volunteers who do not have cars and for many visitors to this national historic site and much-loved greenspace. I have spoken and written to OC Transpo about the negative impacts of their decision for consideration during their re-assessment of routes. If you have been affected, or know someone who has, please do the same.

Let's hope we will see better weather this year and it would great, but probably unrealistic, to get control of the Japanese beetle and dog strangling vine. As one garden team leader put it, "we soldier on!"

Mots du président

En 2011, si les équipes de nos jardins ont vécu une année pleine de défis, elles ont toutefois bénéficié d'une large somme d'expériences enrichissantes. Les rosiers, les lilas, les hémérocailles et les pivoinas, de même que les annuelles et les vivaces, ont eu une floraison éblouissante au début de l'été; cependant, les fleurs se sont faites plus rares et la croissance s'en est ressentie ensuite dans la saison plutôt sèche et compte tenu des scarabées japonais. Cette année, ce fut l'automne le plus long dont je me souviens à Ottawa.

Un approvisionnement en eau à l'intention du brise-vent Merivale a emballé les membres de l'équipe qui veillent à son entretien. La nouvelle remise en forme cylindrique fournit une alimentation en eau à énergie solaire et sert d'espace de rangement pour les outils. Sur les plaques au brise-vent, vous êtes invités à exprimer

vos admirations pour la Ferme ou à faire une dédicace à la mémoire d'une personne ou d'un événement. En septembre, profitant d'une température saisonnière fort idéale et de la présence de nombreux visiteurs, nous avons reconnu douze nouveaux donateurs, leurs familles et leurs amis.

Nous entretenons de cordiales relations de travail avec Agriculture et Agroalimentaire Canada (AAC), et je remercie les représentants d'AAC qui accordent aux Amis de la Ferme leur appui continu. Avec leurs conseils, nous poursuivons notre travail à favoriser le maintien et la préservation des jardins ornementaux, de l'Arboretum et du brise-vent.

J'aimerais remercier nos membres et nos bénévoles qui, en 2011, ont respectivement accordé un soutien

inlassable et fourni maintes heures de travail acharné. L'annulation de la route 3 a occasionné un retrait d'un bon nombre de nos bénévoles, qui ne disposent pas de voitures, et de plusieurs visiteurs à ce site historique national et espace vert tant estimé. De vive voix et par écrit, j'ai fait valoir à OC Transpo les conséquences négatives de leur décision afin que la compagnie de transport en tienne compte au moment de la réévaluation des routes. Si vous avez été touchés, ou connaissez quelqu'un qui a, s'il vous plaît faire de même.

Nous formulons le souhait d'une température plus clémente cette année, et nous espérons prendre le dessus sur les scarabées japonais et les dompte-venin de la Russie, même si cela semble quelque peu réaliste. Comme le dit le chef d'une équipe des jardins, « nous sommes persévérants! »



On the Bus

Mark your calendars – **MARCH 28, 2012** – to chase away the winter blues! Join us for a matinee performance of "The Foursome" at the Upper Canada Playhouse and dinner at the Legion. Four old pals reunite after 15 years – share their lives, stories and secrets. You'll be laughing all afternoon. Leaving the Agriculture Museum parking lot at noon and returning by 8:30 pm by luxury bus. Cost is \$90 for members, \$95 for others. To reserve, call 613-230-3276 or e-mail info@friendsofthefarm.ca.

We're going to **Reford Gardens, Métis**, July 15, 2012. See details on our website. Book early – this will sell fast!

Barry Flahey - Botanical Artist at the Farm *(continued from Page 1)*



Tepary Bean (*Phaseolus acutifolius*), by Barry Flahey

Agriculture quit in 1976, Barry quickly accepted a job offer, launching his career as an illustrator in entomology and, later, botany.

Insects fascinated him. In pursuit of a giant beetle while on a camping trip to Kenya, Barry had to slither under a huge black limousine to catch it with his net. When he emerged, large armed men in dark suits and sunglasses confronted him. A man in the rear of the limo asked what he was doing and was amused at Barry's explanation. After being escorted back to his transportation, Barry learned that the man in the car was Kenyan President Daniel arap Moi. "I suppose all entomologists have stories like this," he says.

"Illustrators are as scarce as hens' teeth"

Although botanical illustration is giving way to photography, there remains a need for technical illustration. "You can't always see with a photograph what's going on in the subject," says Barry. "It can be difficult to get the focus, lighting and colour right."

While conceding that photography can achieve amazing results, Dr. Ernie Small, Principal Research Scientist, AAFC, says that, unlike a photographer, an illustrator can "picture things in two dimensions, avoiding problems with depth of field, and also emphasize important features."

Ernie is always looking for illustrations for his scientific papers and books (see Page 10). "Illustrators," he says, "are as scarce as hens' teeth." He laments the loss of this skill, which, he argues, is invaluable in understanding the architectural structure and detail of a species. He quotes Linnaeus, the originator of current naming and classifying of plants and animals, who wrote that no one should go into biology unless he was a skilled illustrator.

Insects to love and respect

Ernie values highly Barry Flahey's work, not only for his ability to render accurate and complex drawings for scientific purposes, but also his ability to create impressionistic scenes and interpretative cartoons. "While perhaps peripheral to science," says Ernie, "this type of illustration can be very useful in making a point, and Barry has extreme skill at it."



Carol singers at the rear doors of the Farm's K.W. Neatby building, by Barry Flahey

Humour, says Barry, can promote further interest not only for scientists, but students and anyone interested in entomology in general. For example, he points out on his website (www.magma.ca/~bflahey) that insects are everywhere. "Without them we would not be here, at least in our present form. They are the dominant group of animals on the earth today. So we may as well learn to love and respect them."

His website offers 22 whimsical renditions of "insects depicted in role-reversal, human-like situations," such as Christmas carolling (see illustration above), skiing, playing in a rock band, and looking at exhibits in a "humanarium."

Among the 450 species of insects portrayed in these cartoons is the Japanese Beetle (*Papilla japonica*). We may not be willing to accept its dominance in our rose gardens and loving them may be a stretch, but with Barry's humour we can at least try to respect them!

Any Ideas for Canada's 150th Birthday?

Do you have any ideas for projects or activities for the Friends of the Farm to commemorate the 150th year of Canadian Confederation in 2017?

The Board of Directors of the Friends of the Farm is seeking new ideas for a five-year plan for our organization. Any thoughts or suggestions are welcome at this stage - some interesting ideas have already been submitted.

The Board will consider the feasibility and cost of all ideas and suggestions that are consistent with our mission (to maintain, enhance and protect the arboretum, gardens and other public areas, under the direction of AAFC, and increase awareness of the heritage value of the Farm) and will outline a set of priority projects within an overall plan for the Friends.

Whether you are a member, donor, volunteer or just have an interest in the Farm, please participate in this important process that will guide our efforts over the next five years to help celebrate 150 years of confederation and over 130 years of the Central Experimental Farm.

Please send your thoughts/suggestions to Eric Jones at eric.jones086@sympatico.ca, or leave a message for him at the Friends' office.

AGM Recognizes Volunteer Contributions

“Whether a volunteer helps at one event or puts in hundreds of hours annually, every contribution counts and is greatly appreciated,” said Mary Ann Smythe, former Director of Volunteers, at the 2011 Annual General Meeting, before recognizing the following Friends of the Farm for their landmark contributions.

20 Years

Audrey Pullan - started with the tree team and is one of four founding members of the lilac team. She also helps at the Victorian Tea and donates baking to our bake sales.

15 Years

Blanche Borkovic - a regular at most of our fundraising events and helps with the mailing of the newsletter.

Diana Dakers-Ryan - started with the rose team and craft group, and was almost immediately seconded to the Board of Directors, on which she served two 6-year terms. She is a past vice-president and director of events. She is leader of the rose team and co-ordinator of events.

Catherine Hooper - member of the Arboretum team, co-leader of the bloom time team, past Board member, and a willing helper at fundraising events.

10 Years

Judy Benner, Cyril Benson, Isobel Cameron, Rick Carpenter, Richard Conway, Jean Currie, Freda Godby, Doug Shouldice, Joseph Slobodian, Ann-Louise Stevens, Cathy Ternan.

5 Years

Barbara Casson, Joyce Clarke, Marilyn Deschamps, Rhéal Gauthier, Jean Jenny, Denise Kennedy, Brenda Lester, Linda Lewis, Ben Pascolo-Neveu, Rosalie Robar, Libby St. Louis.

In the Spotlight

For over a year we have turned a spotlight on some of our longer-serving volunteers. One of these valuable contributors to the Friends is featured each month on the home page of our website - www.friendsofthefarm.ca. A click on the small head and shoulders photo on the home page brings up a short article on the volunteer. Mary Ann Smythe is the author of the articles and Polly McColl provides the photographs.

Board of Directors

At the AGM, President Chuck Craddock acknowledged the valuable contributions of Directors who left the Board in 2011 - Judy Benner, Richard Conway, Diana Dakers-Ryan, Denis Doucette, Roman Popadiouk and Mary Ann Smythe. He welcomed new and returning Board members. The Board of Directors for the Friends of the Farm for 2011-12 is the following:

Charles Craddock - president
 Eric Jones - vice-president
 Judy Dodds - secretary
 John Gribbon - treasurer
 Tom Hillman - events
 Richard Hinchcliff - communications
 Denise Kennedy - membership
 Brendan Roy - at large
 Bert Titcomb - fundraising
 Polly McColl - past president.

New Wall at the Hosta Garden



R. Hinchcliff

A new retaining wall in the Hosta Garden was finished in November. Financial assistance from Agriculture and Agri-Food Canada in this first phase of a Friends of the Farm project was much appreciated, says Polly McColl, project manager. It is a multi-year project, with two or three more walls to be completed, depending on funding. Hostas will be replanted at the upper level in the spring.

From Russia with Love for Trees

When Roman Popadiouk emigrated from Russia to Canada in 1997, his English skills were very limited. Eight years later, he was co-author of a “best seller.” Published by the Friends of the Farm, *For the Love of Trees: A Guide to the Trees of Ottawa’s Central Experimental Farm Arboretum* has been a tremendous success and is now in its third printing.

The story of Roman’s arrival in Canada and his long association with the Friends of the Farm is an interesting tale in itself.

In 1993, spurred by the uncertainty wrought by the collapse of the Soviet Union in 1991, Roman applied for permanent residency in Canada for himself, wife, and two children. Canada, he explains, was a logical choice. Canada and Russia share a similar climate and geography, Roman perceived Canada as a “comfortable and quiet place,” and his wife’s brother had already settled here and “could help with the family’s orientation.”

Application made, it was another four years before Canada opened its doors to the Popadiouks. Roman arrived with stellar academic and professional credentials – a PhD in Forestry Ecology and a Masters in Forestry and several scientific monographs to his credit. The future looked bright. Roman was almost immediately offered a job as a forestry consultant. Unfortunately, it was “bad timing.” The forestry industry went into a tailspin at the end of 1997 and his job lasted only three months. Another contract followed in 2001 with Roman part of a group of industry experts charged with drafting new forestry management regulations. The project resulted in a new forestry guide in 2004 and a technical report and feature article by Roman were also published in the National Research Council’s *Environmental Reviews*. Like many immigrants with professional designations obtained abroad, he had to requalify in Canada to work as a forestry professional. The process to become a Registered Professional Forester is long and expensive and “at this time in my life,” Roman explains, “it really isn’t worth it.” He is now employed in the security sector, his wife Galina Ponomarenko teaches art classes, his daughter attends

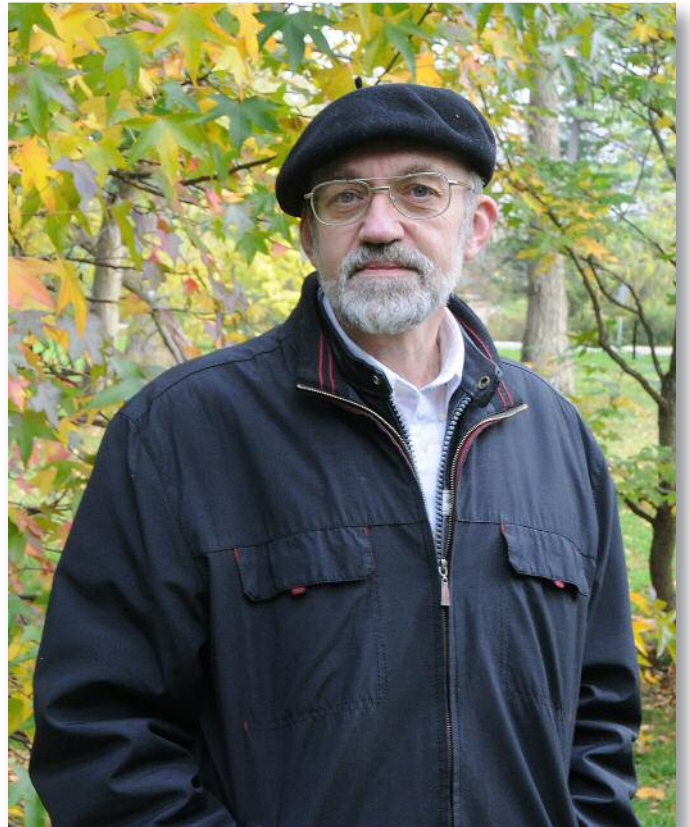
Carleton University, and his son has returned to Russia.

Upon arriving in Ottawa, Roman explored his neighbourhood, which bordered on the Central Experimental Farm. The Arboretum beckoned and, with his forestry background, he could “easily recognize that it was a nice park.”

The Farm discovered, Roman only chanced upon the Friends of the Farm while exploring opportunities available to him and his family in Ottawa. He joined the Friends in 1998 and through his volunteer work met Dr. Tom Anstey, a retired Agriculture Canada senior manager who helped found the Friends. Tom encouraged Roman’s English skills. Author of *One Hundred Harvests*, Tom “pushed” Roman to learn English. He had Roman read *One Hundred Harvests* to him – “Tom didn’t allow me to skip a word” – and in the process of vastly improving his English, Roman learned about Canadian agriculture.

When then Friends’ President Valerie Cousins suggested publishing a tree book, Roman was a natural choice because of his technical expertise. He has nothing but praise for the entire team that worked on the project. “It was a great group,” he offers. “We each had our own work, and we worked together well.”

Roman’s professional life prepared him for working cooperatively in a group – “when you work in science, you work as a group” – and he has made a tremendous contribution to the Friends over the last 13 years. He provided technical expertise



R. Hinchcliff

Roman Popadiouk

when the Rose and Peony Gardens were revitalized under the direction of George Vorauer, updated the Farm’s computer inventory of trees and shrubs, leads tours of the Arboretum, and together with co-author Richard Hinchcliff talks to outside groups about the Arboretum. He also helps at fundraising events.

In September, Roman completed a six-year term on the Board of Directors, the last year as vice-president. Quiet spoken and unassuming, he was a moderating force on the Board – his views well informed and articulated.

The Friends have benefitted greatly from Roman’s knowledge, skills and hard work, but have also played a major role in Roman’s life in Canada. He has established his “own community in this country” and the Friends are integral to that community. As he has for the last 13 years, Roman hopes to continue to contribute to the Friends in whatever way he can.

Mary Ann Smythe

Faith Fyles



Pasque Flower (*Pulsatilla*), by Faith Fyles. *Principal Poisonous Plants of Canada*, Department of Agriculture, Bulletin No. 39, 1920

Just over 100 years ago, Faith Fyles, an amateur artist with a passion for botany, took a job in the Department of Agriculture at the Central Experimental Farm. Drawing specimens in her spare time, she impressed her colleagues, created a demand for her work and, after several years, became the Department's first botanical artist.

Born in 1875 in Cowansville, Québec, Faith was the seventh of ten children born to Anglican clergyman Dr. Thomas Fyles and his wife, Mary. She graduated from high school with honours, entered McGill University with a first-class scholarship and completed a B.A. degree.

After graduation, she spent a year studying the flora of Quebec with her

father, an amateur botanist and entomologist, and took art classes. Faith then taught school for six years, which was followed by a year travelling and studying in Europe.

“Women’s work”

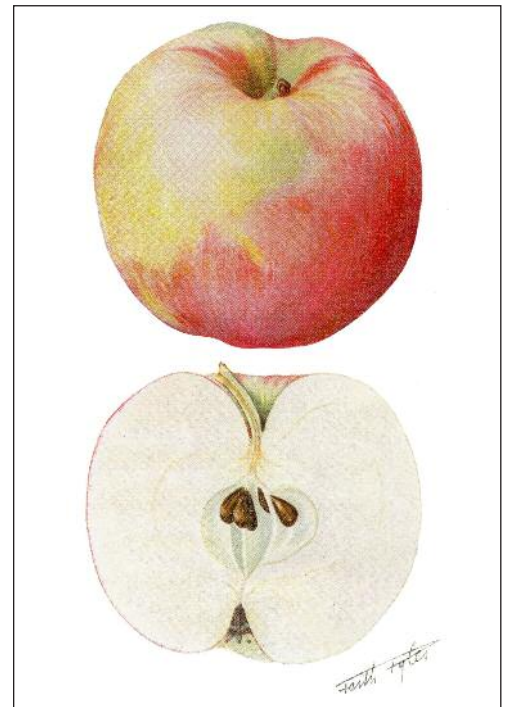
She began at the Department of Agriculture in 1909 as an assistant seed analyst. The chief of the Seed Division at the time, G.H. Clark, wrote, "Men do not take to the detail work of seed testing. It is very fine and close work, very trying on the patience. It is essentially women's work."

Two years later, Faith was transferred to the Botany Division at the Experimental Farm as an assistant botanist. At that time, it was rare for the



Faith Fyles

government to hire women as professionals in botany, and there is conjecture that her appointment may have resulted from her father's connections, from the influence of one of her former professors who was a public service examiner in botany, or from the fact that she was 36 years old and the "likelihood of her leaving the position in favour of marriage and a family was not high."¹



'Melba', by Faith Fyles. *Cultivation of the Apple in Canada*, Department of Agriculture, Bulletin No. 55, 1925

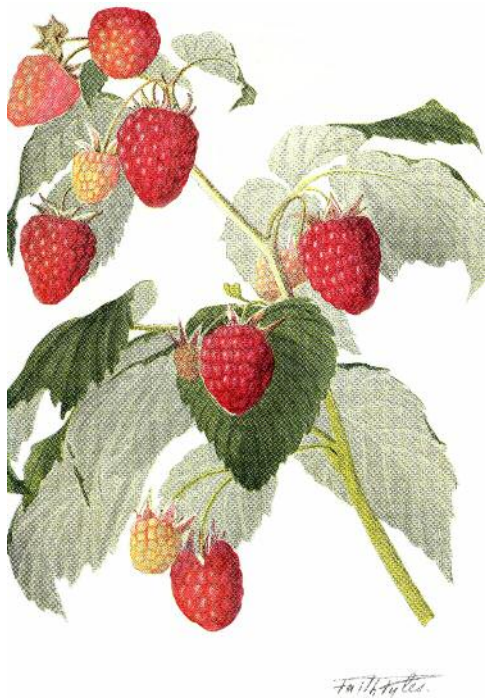
¹Amber Lloydlangston, "Women in Botany and the Canadian Federal Department of Agriculture, 1887-1919," *Scientia Canadensis: Canadian Journal of the History of Science, Technology and Medicine*, vol. 29, n° 2, 2006, p. 99-130.

- First Botanical Artist at the Farm

Putting to work a passion for botany

Faith was put in charge of the Arboretum, for which the botany division was responsible at the time. Of her duties in the Arboretum, she wrote that the labelling of trees, shrubs and herbaceous perennials “will be particularly valuable to teachers and students who frequently visit the gardens to study rare species from distant parts of Canada, which otherwise it might be impossible to examine except from dried material.”

Another of her main responsibilities was to identify the large number of plants sent to, or collected by, the division. It was important to identify harmful weeds and provide advice for new farmers across the country on how to deal with them. In 1914, Faith toured western Canada collecting weeds. “Upwards of 800 perfect specimens of weeds representing 44 different species were collected, pressed, dried and shipped to Ottawa... Many hundreds of botanical specimens other than weeds were also collected, to be included in the herbarium.”



‘Viking’, by Faith Fyles. *The Raspberry and its Cultivation in Canada*, Department of Agriculture, Bulletin No. 114, 1934

The Farm’s 1913 annual report included Faith’s report on plant identification and a later bulletin written by her entitled *Principal Poisonous Plants of Canada* was widely circulated, and featured many of her paintings, sketches and photographs.

An expert artist

When she began in the botany division, Faith offered to draw botanical specimens in her spare time. A year later, the Dominion Botanist, Hans Güssow, wrote in his annual report: “Miss Fyles has shown herself to be an expert artist, and her skill in this connection has been much in requisition and has been found very useful in all phases of work of this division.”

Güssow wrote that her pen-and-ink and watercolour drawings were of “great importance in enabling the farmers to more readily recognize the appearance of certain diseases of plants, and to identify noxious weeds and poisonous plants.”

In 1920, she became the first artist to be employed in the Horticulture Division. “With the breeding of fruits, vegetables and flowers, where so much depends on colour and appearance, an actual visual record of the product is essential.” Her watercolours illustrate publications such as *Cultivation of the Apple in Canada* and *The Raspberry and its Cultivation in Canada*.

After her retirement in 1931, Faith devoted herself to art, and there were several exhibitions of her work in Ottawa. Her oil, pastel and



Bloodroot (*Sanguinaria canadensis*), by Faith Fyles. *Principal Poisonous Plants of Canada*, Department of Agriculture, Bulletin No. 39, 1920

watercolour paintings depicted scenes from her travels, local landscapes, and “her beloved delphiniums, peonies, lilacs, zinnias and marigolds.” Faith Fyles died in Ottawa in 1961.

Richard Hinchcliff

From Fyles to Kellett

Arthur Kellett succeeded Faith Fyles in 1931 as botanical artist in the Horticulture Division at the Central Experimental Farm after working as an artist for several years in the Entomology Division. His previous work experience included a two-year stint as an artist at Kew Gardens in England, as well as work as a commercial artist and photo-engraver. He left the Farm sometime in the 1940s.



Untitled, by Arthur Kellett. Library and Archives Canada

The Joy of Botanical Drawing

Courtesy of Valerie Cousins



Valerie Cousins, life member and former president of the Friends of the Farm

What I value about botanical art are the patience and skills needed to render a plant accurately, but more than these, the ability to get inside the spirit of the plant and make it come alive. (Sarah Zoutewelle-Morris, "Botanical illustration is Alive and Well," www.artcalling.wordpress.com)

The challenge

Though I am an utter amateur when it comes to making botanical art, I find that like the artist's quote above, I love to look at a plant, trying to really see it, capture its essence and put it on paper. This is how I deepen my enjoyment of all trees and plants. At a certain point in making a drawing, the experience feels like a spiritual practice because the connection with the inherent beauty and complexity of the plant is truly awe-inspiring. When I try to draw every intricate little bit, no matter how common the plant, I am getting to know it for the first time. And there is great delight in this. Of course getting the essence or spirit of anything in art is a challenge and mostly impossible, yet the joy is in the challenge and sometimes, on a good day, in the result.

With botanical art there is a nice coming together of art and science, which is another reason for my interest in it. Drawing skill is extremely important, but so is the ability to make the drawing as scientifically accurate as possible. This means understanding depth, proportion, all parts of the plant and how they

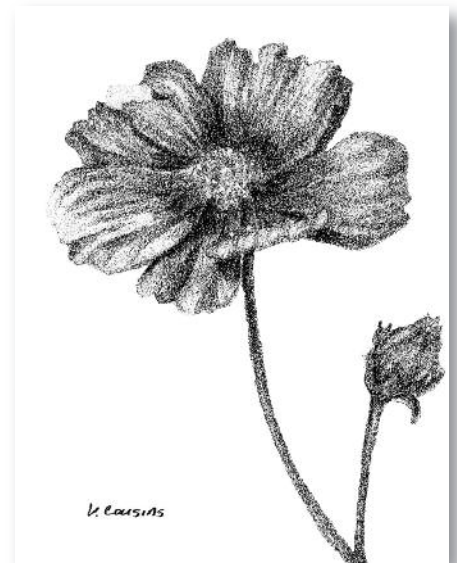
function, not to mention natural colour (if using coloured pencils) and shaping of the form.

I remember one class in which a teacher pointed out to me that my stem didn't look like it could support the weight of the flower. When I questioned her, she replied simply that I should continue to observe my subject. And when I did, I realized that my stem wasn't coming up behind the flower in the correct position, making it impossible for it to support the flower's weight. I then realized that it is extremely important to observe and understand the structure of the plant - not just the general shape and colour.

The basics

As one learns in most drawing courses, there are a few basic shapes that, when mastered, are the foundation for drawing most plants. The sphere is fun: it involves taking a circle and shading it so that it has form. Most fruit shapes are a variation of the circle or its first cousin, the ellipse.

Then there is the cylinder, which is invaluable for rendering stems, branches and stamens.² A cup is very important for shaping flowers, as is a cone. For petals, one must be able to indicate concave and convex shapes. Drawing a spoon in two



Cosmos, by Valerie Cousins

ways, facing up and then facing down, is a good way to practice the more complex shape of petals.

Travel and botanical art

What I find most pleasurable is to draw plants as I find them when travelling. Sea Grape shrubs (*Coccoloba uvifera*) are as common as dust in Florida and the Caribbean, but when I really looked closely at the large, sensuous leaves, I immediately wanted to draw them. One



Privet blossom (*Ligustrum vulgare*), by Valerie Cousins

²Wendy Hollender, *Botanical Drawing in Color*, Watson Guptill Publications, New York, 2010, p.33

would think that a simple large leaf would be easy to master and therefore offer no challenge, but no, the pattern of the veins isn't easy and the slightly rounded sections of leaves between the veins require sensitive contouring.

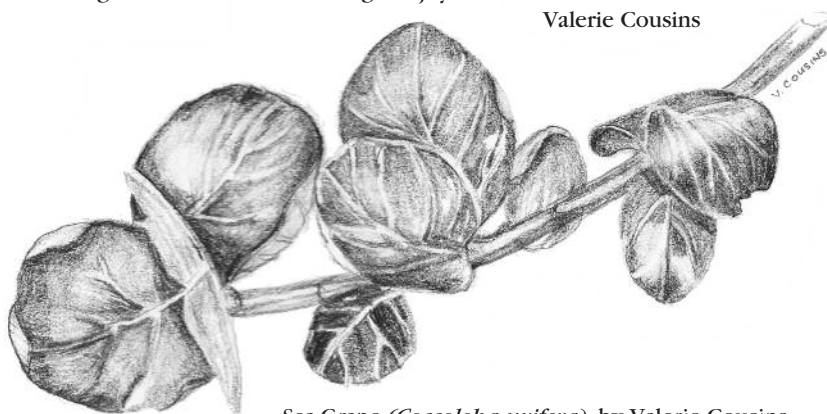
Still, the challenge is always worthwhile for me because I learn so much about each plant I draw.

Meticulously trimmed Privet hedges (*Ligustrum vulgare*) outline properties in coastal New England and especially on the islands of Martha's Vineyard and Nantucket. One hardly ever thinks that these green geometric blocks are actually made from a lovely plant with a tubular fragrant blossom. One dull afternoon while visiting Nantucket, I picked a sample of Privet and began to draw. I was fascinated with all of the delicate parts of the plant and, as I drew, I developed a new respect for something as common as this.

I highly recommend botanical drawing for anyone who wishes to enjoy plants on a deeper level. It is also a quiet, peaceful pastime and a wonderful alternative to watching TV. It continues to be a great joy for me.



Hibiscus, by Valerie Cousins



Sea Grape (*Coccoloba uvifera*), by Valerie Cousins

Getting Started

As a starting point, I suggest a copy of "Botanical Drawing in Color" by Wendy Hollender, who is the coordinator of botanical art and illustration at the New York Botanical Garden. Not only is this a beautiful book, but it is full of easy, step-by-step instructions.

If you wish to take lessons, we have an expert teacher in Ottawa. Contact Kerri Weller who teaches at the Nepean Visual Arts Centre - www.kerriweller.com.

V.C.

An Unforgettable Orchid

In the Ottawa Field Naturalist Club's 1912 journal, Faith Fyles (see Page 6) described a trip to a Wakefield-area swamp and her discovery of the "incomparable little orchid *Calypso bulbosa* (L.) Oakes. I found it quite by accident. As we were then approaching

the swamp proper and sinking to the tops of our rubber boots, to gain a firmer footing I pulled aside a cedar bough and so brought to view the little Calypso in a bed of moss, among a tangled mass of boughs and broken branches. Its tapering amethystine sepals and petals

outspreed, its waxen pouch and transparent overleaf marked with madder and hung from a slender scape, its solitary green leaf springing from a second small corm, its very delicacy in its rough surroundings make it easily recognizable and quite unforgettable."



The Friends of the Central Experimental Farm is a volunteer organization committed to the maintenance and protection of the Ornamental Gardens and the Arboretum of the Central Experimental Farm in Ottawa, Ontario, Canada. Membership in the Friends of the Farm costs \$25 per year for an individual and \$45 per year for a family, \$20 Seniors/Students. Membership fees support the many projects of the Friends of the Farm.

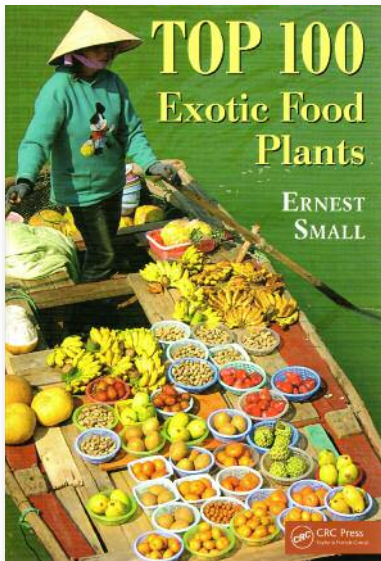
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Top 100 Exotic Food Plants



By Ernest Small
 Illustrated. 708 pp.
 CRC Press, 2011
 ISBN 978-1-4398-5686-4
 \$89.95

You may not have recently purchased chinese gooseberries, tree tomatoes and cape gooseberries, but you may well have bought kiwi fruit, tamarillos and ground cherries – same fruit, different names.

This new book by Dr. Ernie Small, Principal Research Scientist, Agriculture and Agri-Food Canada (AAFC), provides a wealth of botanical, agricultural and culinary information about these and 97 other exotic food plants.

Dr. Small's 2009 award-winning *Top 100 Food Plants* features the most important plants that feed the world. The new book covers tropical and semi-tropical plants that, due to increased trade and greater interest in health, travel and cooking, are becoming familiar in the Western world.

A "culinary portrait" and a slew of fascinating "curiosities" follow a description of each plant. The book includes fruits, nuts, vegetables, legumes, cereals, oilseeds, herbs and spices, and features edible plants that have received particular attention and/or notoriety, such as the acai berry, kava, hemp, and opium poppy.

Like Dr. Small's previous books, *Top 100 Exotic Food Plants* is full of extraordinary illustrations. He has chosen many of them from "the golden age of plant illustration" – the late 17th century to the very early 20th century. There are also 15 new drawings by Barry Flahey, Scientific Illustrator, AAFC (see Page 1).



New roundabout replaces traffic circle, November, 2011

Used Book Drop-Off

Do you have gently used books looking for a new home? If so, please donate them to our June 2012 book sale. Volunteers will accept your used books on February 4, 2012, from 10 am to 3 pm at Building 72 in the Arboretum of the Central Experimental Farm. Please note that we are **unable to accept magazines, encyclopedias, dictionaries, Reader's Digests or text books.**

Master Gardeners Lecture Series

Sign up for individual lectures or the entire series. Lectures are held from 7 to 9 pm, Building 72, Arboretum, Central Experimental Farm. Individual lectures: \$12 FCEF members, \$15 others; series: \$40 FCEF members, \$50 others.

April 3 – All From a Little Seed! by Rebecca Last

If you have struggled to get seeds to germinate, pick up tips and tricks for successful seed starting, whether annual flowers, vegetables or some trickier perennials. The presentation includes a "show and tell" of several types of equipment that can be used to start new plants from seeds.

April 10 – Low Down Delightful Dirty Earth by Edythe Falconer

Learn how to create your own earthy delights, maintain and build

your own soil wherever you grow, from pots, lots, gardens, patios or penthouses. Let us save our living earth!

April 17 – The Beauty of Annuals by Diane McClymont Peace

Not all annuals work well in a border – find out which do and which don't. The presentation also includes annuals for sun, shade, dry and moist conditions; colour, height and texture that work well together; and tips to ensure long-lasting blooms and healthy plants.

April 24 – Creating Winter Scenery in Your Own Yard by Julianne Labreche

Find out which shrubs, perennials and grasses to plant for winter interest in your garden and see photos to illustrate the choices. The purpose of the selected plants is to create interesting colours, shapes and textures that will stand out when covered with snow.

NEW MEMBER REGISTRATION FORM

NAME: _____
 ADDRESS: _____
 CITY: _____ POSTAL CODE: _____
 PROVINCE: _____
 TELEPHONE #: _____
 FAX #: _____
 E-MAIL: _____

INTEREST IN VOLUNTEER OPPORTUNITIES

YES NO

TYPE OF MEMBERSHIP

FAMILY \$45/year
 ADULT \$25/year
 SENIOR/STUDENT \$20/year
 BASIC CORPORATE \$250/year
 NON PROFIT ORGANIZATION \$25/year
 INDIVIDUAL LIFE \$200
 SENIOR COUPLE LIFE \$250
 DONATION \$ _____
 TOTAL \$ _____

Please make cheque or money order payable to: "Friends of the Farm." A receipt for income tax purposes will be issued for all donations of \$10 or more.

We are located at Building 72 in the Arboretum. You can visit us or mail this part of the form with your payment to:

**FRIENDS OF THE CENTRAL EXPERIMENTAL FARM
 Building 72, Central Experimental Farm
 Ottawa, ON K1A 0C6**

Telephone: (613) 230-3276

Fax: (613) 230-1238

Email: info@friendsofthefarm.ca

Website: www.friendsofthefarm.ca

Fundraising Events for the Farm, August to November, 2011

R. Conway



Art on the Farm

Around 200 guests, many in lovely hats and dresses, attended the **Victorian Tea** on August 7. Tea and goodies were served under a dubious sky, which eventually brought rain showers, but volunteers and guests held fast and the tea continued. The profit for the event was \$865. Many thanks to all the kitchen staff, tea makers and pourers, bus boys/girls, servers and dishwashers. Thanks also to Angela and Roger for the music. It takes a lot of people to make this event happen but it brings people to the Farm, a wonderful opportunity to advertise this beautiful heritage site in the centre of our city.

Later in August, 72 artists, working in many different media, gathered on the Main Lawn at the Saunders Building for **Art on the Farm**. The Bytown Fire Brigade provided a barbecue for hungry shoppers. We are always at the mercy of the weather and this year was no exception, with a short, strong shower in the afternoon. Needless to say we all got wet. When the receipts were counted, the Friends' coffers were almost \$3,550 richer.

Nine artists at the **For the Love of the Farm Fine Art Exhibition and Sale** displayed wood sculpture, brushwork, thread work, and photography. This year we tried something new – a lottery. Our volunteers worked hard selling tickets for a beautiful, large metal pine cone by metal sculptor Steve Lyall. The show, which



R. Conway

Galina Ponomarenko, artist, Art on the Farm

opened with a vernissage on Friday of the Thanksgiving weekend, was a success and, as always, a good time. Thank you to all the volunteers who gave of their time. Our commission from the artists' sales, the silent auction and lottery raised just over \$8,000.

There were 22 crafters at the **Craft and Bake Sale** in November, which also included our membership table and bake table. Once again, we were overwhelmed by the generosity of members and volunteers who contributed home-baking. We made over \$1,600 at the bake table and, combined with the crafters' table rental fees, we brought in \$3,070, plus another \$890 from sales of books and cards at the membership table. Well done and thank you to everyone who lent a helping hand.

A special crew

A special thank you to all the set-up/take-down volunteers who are faithful helpers at every Friends of the Farm event – at Building 72, out on the Main Lawn, carrying the heavy lottery pine cone all over the place, and setting up events elsewhere.

You are an amazing group of fellows and gals who, without complaint, sweep, lift, move and do whatever is asked of you. I thank you from the bottom of my heart. I couldn't do it without you. Special thanks to Joseph Slobodian who every event helps put up our signs and takes them in again, and to Wilma Millar who phones masses of people to recruit volunteers for all our events.

Diana Dakers-Ryan



Polly McCoil

Joseph Slobodian

Colours of the Farm *(continued from Page 12)*

months. And you do not need to be a botanist to recognize by its colour a tree's unique combination of leaf morphology and shape, and crown architecture. Thorough observation is enough to spot your favourite type of tree at the Farm or at other parts of our city.

Seasons

For those who don't have the time or inclination for careful observation, nature has reserved one more feature – the festive colours of fall. In the maple section of the Arboretum, for example, the soft green blend of summer foliage breaks into a high-contrast mosaic. No one will have a problem identifying Red, Silver, and Sugar Maples. Down the hill from the maples are many ash trees. The purplish green leaves of American Ash distinguish them from the yellow foliage of European and Green Ash.

Bright colours catch the eye, especially in early autumn when many trees remain green, in contrast to the striking yellow, orange, purple, and red trees. These are unique in their fall colours, just as they are in their summer shades of green.

(See Page 5 for a profile of Roman)

Roman Popadiouk

Colours of the Farm

Anyone who walks, runs or drives through, or flies over the Central Experimental Farm will notice a vast variety of colours. Large patches of fields and long strips of hedges and shelterbelts appear uniformly coloured, unlike the complex mosaics of the Arboretum and Ornamental Gardens. And the brightness, intensity, and palette of colours constantly change from morning to evening, or under a cloudy or blue sky. Each season repaints the landscape, focusing our attention on different features.

How does nature create this diversity of colour?

Pigments or plant paint

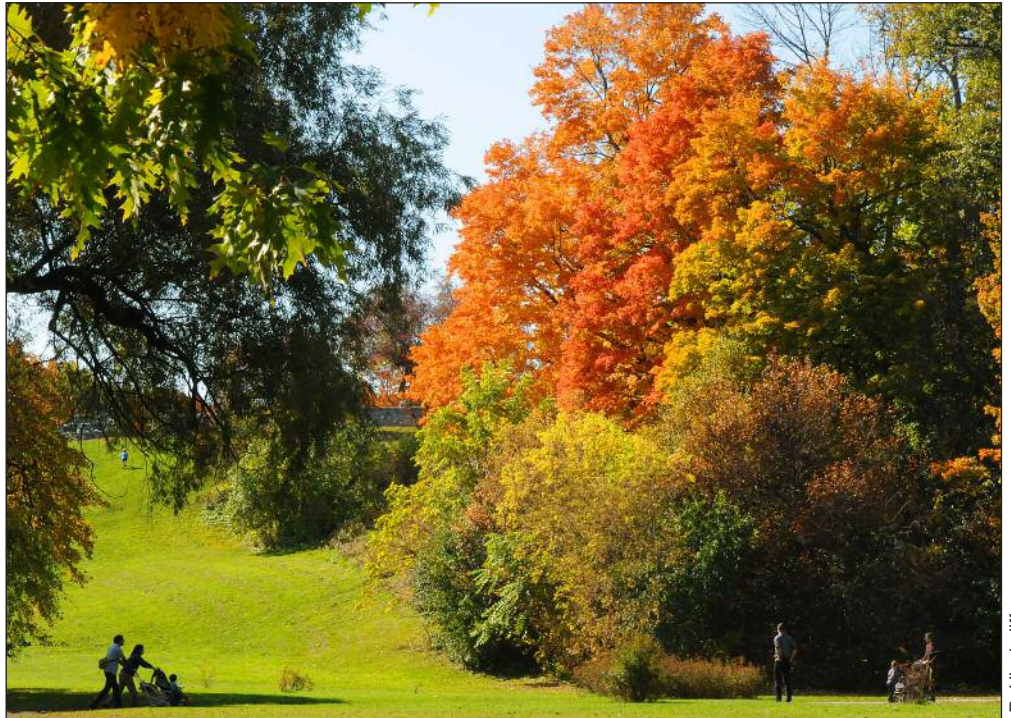
Plants use a relatively small number of paints to produce a rich colour palette. Three groups of pigments – green (chlorophylls), yellow (xanthophylls), and orange (carotenes) – produce the colours of leaves, flowers, and fruits. These pigments transform sunlight energy into organic matter, so leaves contain most of them. Chlorophyll dominates in summertime, while xanthophyll is abundant in leaf tissues when nights are colder. A high concentration of pigment results in a high intensity of leaf colour.

Despite the importance of pigment, other things contribute to the palette.

New leaves on a tree appear in lighter hues than mature leaves because thin leaf-blades have fewer cell layers, allowing



Red Maple (*Acer rubrum*)



Arboretum

R. Hinchcliff

more light through the leaf. Thicker outer and inner layers will change leaf reflections and create noticeable differences between closely related species. Although pear and crab apple tree leaves are similar, the usually thick and glossy pear tree leaves are clearly different from the dull and thinner crab apple leaves during most of the “green” season.

Hairiness of the leaves is another factor. Two oaks, English and Swamp White, appear almost identical at first glance. On a windy day, however, the difference is obvious when the whitish-haired bottom side of Swamp White Oak leaves flash alongside the dark green upper leaf surfaces.

Leaf shape and forms

The perception of tree colour is, thus, related to leaf tissues. It also depends on leaf shape and form. Sugar and Norway Maples share similar leaf form, both having five-lobed, sharp-pointed leaves. And yet, they display different colours. Sugar Maple has a folded leaf blade that exposes the top and bottom part of the leaf to almost any point of view, whereas the Norway Maple has flat leaves and the reflection of sunlight depends more on the location of the sun and viewers of the tree.

A number of different cultivars of the linden tree came to the Arboretum from Europe. One of them is the Cut-Leaf Linden that differs from others only by the shape of its leaves. Deeply cut leaf blades bring a grayish hue to the usual dark green linden foliage. Two adjacent linden trees of similar age and size could be deemed different species from a distance, if one is of the cut-leaf variety.

Branching pattern

The leaves of trees can also appear quite different to the viewer depending on the architecture of supporting branches. The ginkgo tree has a very simple branching pattern consisting of large boughs growing off a straight trunk with a relatively small number of twigs. Its foliage is sparse and there are numerous large and small gaps within the tree's crown. The colour of such a tree changes significantly with the background. The Speckled Alder tree has a similarly shaped crown, but there are many thin branches and twigs densely populated by leaves. Unlike the ginkgo, the surroundings do not substantially affect the alder's colour.

Many other examples of “generally” green, but differently coloured, trees can be seen in the Arboretum during summer

Continued on Page 11