



JUNE 2019

# SITELINES

Landscape Architecture in British Columbia

## Growing Together

Japanese Beetle – Building a Partnership<sup>5</sup> | Japanese Beetle – a New Invasive Species | CFIA's Article |  
Keeping your Green Roof Green | CanWest | Resilient Trees , Shrubs and Plants | Growing More Than Flowers |  
Artificial Turf | Fellows: Liane McKenna



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450–355 Burrard St. Vancouver, BC V6C 2G8

**T** 604.682.5610 **TF** 855.682.5610  
(Canada and US)

**E** office@bcsla.org | admin@bcsla.org

**W** www.bcsla.org | www.sitelines.org

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#### SITELINES GROUP

<b>GUEST EDITOR</b>	HEDY DYCK, BCLNA COO
<b>CO-EDITOR</b>	Tara Culham
<b>FELLOWS EDITOR</b>	Don Vaughan, LMBCSLA, FCSLA, FASLA
<b>ADVERTISING</b>	Tara Culham 604.682.5610
<b>GRAPHIC DESIGN</b>	Addon Creative 604.379.5943
<b>PRINTING</b>	Initial Printing Inc. 604.669.2383

The purpose of Sitelines is to provide an open forum for the exchange of ideas and information pertaining to the profession of landscape architecture. Individual opinions expressed are those of the writers and not necessarily of those of the BCSLA.

Climate change has become a significant challenge for the landscape industry. The potential of extreme weather episodes has made creating designs and maintaining green spaces that can handle this new reality has become a major priority. The industry has started to innovate and develop new ideas in the selection and production of plants.

**In this edition** of SITELINES, BCLNA presents information that is currently on the forefront of arising issues. Included are topics of invasive species, the next step in green roof management, the pros and cons of artificial turf, and programs in the community.

As the voice for the nursery and landscape industry, the BCLNA is always looking at ways to inspire the landscape architects and consumers to try new and exciting plants. These articles are provided by leading BCLNA members and partners, as well as staff, who all share a passion for plants and the environment. **SL**



Mike Mills, BC Landscape and Nursery Association Chair, Surrey, BC



#### CORRECTION:

The article “*Growing Pains*” in our April Edition was written by Jessica Udal and Brandon Schwartz.

#### In this Issue:



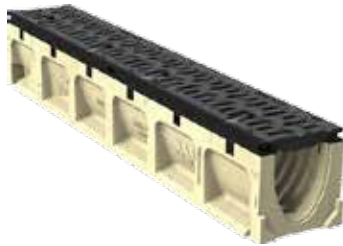
Cover image: *Astrantia*  
Image Credit: Sandy and Sharon Howkins, Specimen Trees wholesale Nursery, Pitt Meadows, BC

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# Japanese Beetle

## – A Partnership Lesson

By: Hedy Dyck, COO, BC Landscape and Nursery Association, Surrey B.C.

The 2017 Japanese beetle finding in Vancouver has precipitated the development of some unfamiliar, and some say, unlikely partnerships. The Canadian Food Inspection Agency (CFIA), the British Columbia Ministry of Agriculture, Metro Vancouver, the City of Vancouver and the BC Landscape & Nursery Association (BCLNA) and Invasive Species Council of BC have worked together since March 2018 to build and implement a multi-faceted eradication program. While government and the business world may not seem to be the most likely of partners, when faced with the significant potential impacts this voracious pest could cause for Vancouver's plant base, sod and green spaces and agricultural and tourism industries, the agencies involved dug in and worked together to respond.

**Japanese beetle** is difficult and expensive to control<sup>1</sup>. It moves by flying and can be picked up in the wind. It's also an avid hitchhiker. That's the good news. The bad news is that it feeds on approximately 300 host plants, including grapes, roses, vegetables such as corn, small fruits, and tree fruits<sup>2</sup>. This means that if Japanese beetle were to become established in BC, more pest control products are required. For the nursery sector, this has significant implications as it can affect export requirements.

This pest overwinters in turf, with similar destruction as the European chafer beetle, which is a significant issue to the golfing industry. However, unlike the chafer beetle, the Japanese beetle causes considerable damage during its adult stage when it is a voracious, destructive feeder on foliage, fruit and flowers.

By gathering key partners and developing a clear direction and plan of action we've ►

1. <https://www.aphis.usda.gov/aphis/ourfocus/planthealth/plant-pest-and-disease-programs/pests-and-diseases/japanese-beetle/japanese-beetle>
2. <http://www.omafra.gov.on.ca/english/crops/facts/92-105.htm#t1>

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seen a potentially expanding pest infestation evolve into an integrated eradication program. Five committees were organized to handle the work—Steering, Funding, Treatment, Movement Control and Communications, with senior staff and subject material experts developing plans to deal with their respective areas of expertise including:

1. **Treatment:** The BC Plant Protection Advisory Council, comprised of scientists, researchers and specialists reviewed pest control products and made recommendations based on both the success of response efforts in other jurisdictions as well as the pest control product. Working with the Province of BC, the CFIA mandated the treatment of turfgrass on public lands in specific areas in the spring of 2018 within the regulated zone. Treatment areas were identified based on results from surveillance and monitoring outcomes during the spring and summer of 2017. Treatment areas including public parks, schoolyards, private residences and commercial sites. The BC Ministry of Agriculture worked in tandem with the City of Vancouver and professional application companies to map out and treat the application area and ensure coverage.

2. **Movement Control:** As Japanese beetle is a regulated pest, the CFIA mandated response efforts to contain the infestation. This included the establishment of movement restrictions for the exit of green waste or potentially infested soil from the infested or regulated area. Movement restrictions were developed considering multiple pathways and stakeholders that move soil and plant material out of Vancouver, including land developers, landscapers, disposal companies as well as homeowner's green bins within the regulated area.

The City of Vancouver established a temporary transfer station to receive

green waste and small amounts of soil from within the regulated area and staffed to meet the workday schedules of landscapers. This green waste, together with the residential green waste, received during the adult flight periods, was incinerated in a Burnaby facility.

3. **Funding:** As with most invasive species findings, there was no budget included to deal with the Japanese beetle investigation. The partners worked together to combine their resources, providing staff time and space, along with funding from the Investment Agriculture Foundation of BC to assist with off-setting eradication response expenses.

4. **Communications:** The Invasive Species Council of BC, along with its regional groups, was key in reaching out to the citizens of Vancouver and the surrounding area, advising them

of the importance of eradication. Senior communication people in the BC Ministry of Agriculture, as well as the CFIA and the City of Vancouver, also worked together to promote the importance of the eradication response effort. Getting correct information out about the safety of approved treatment products is key to managing public concern, particularly for treatment carried out in public parks. Though there were enquiries from the public about the treatment and Japanese beetle, there were few objections to the treatment.

5. **Steering Committee:** This group 'connected the dots' between the different committees, communicating to their respective governing bodies and championing the decision to eradicate and efforts involved.

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## Continuing the Partnership in 2019 and beyond:

Over the past winter, the partners met face to face in November and then again in February, to discuss lessons learned and best practices to date and to consolidate their work planning for 2019.

1. The Committees continue to meet to plan and implement actions on behalf of all British Columbians.
2. The total cost/value for eradication efforts in 2018 is approximately \$1.3 million.
3. The partnership continues to function well with each organization providing valuable input.
4. Movement restrictions for plants and soil continue and outreach to affected sectors, and the public continues to be a high priority for the agencies involved to build awareness and cooperation.

5. A project proposal has been submitted to support the project to a funding agency with BC Ministry of Agriculture contributing the larvicide, the City providing both a temporary transfer site as well as its staff for treatment and site coordination.
6. Communication to the industry and the public continues to be carried out by all partners and in particular the BCLNA for industry, and the ISCBC for members of the public. All partners continue to publish updates on their respective websites. [sl](#)

# JAPANESE BEETLE, a new Invasive Species

By Tracy Hueppelsheuser, Entomologist, BC Ministry of Agriculture, Abbotsford

**While many people** have heard about the incident of Japanese Beetle around False Creek, understanding the biology and life of the pest provides context to treatment and actions surrounding eradication efforts. This summary is prepared by Tracy Hueppelsheuser, Entomologist, BC Ministry of Agriculture, Abbotsford.

## Japanese Beetle Biology Summary and Our Observations in 2018:

Japanese Beetle has one generation per year. Third instar larvae ('grubs') may spend the winter 15-20 cm below the surface, depending on soil temperature. In our mild coastal climate, we do not expect that they will go down very far to avoid the cold, and could continue feeding in grassroots potentially all winter. Larvae move up and feed in the spring, and pupate when fully grown in late May or early June. Pupation takes approximately two weeks. As beetles emerge from their pupae, they will wait in the soil until optimal temperature before emerging from the soil. Flight occurs with temperatures above 21 °C. The beetle flight season began June 18 in 2018, with peak flight July 16-20, and then numbers tapered off in August. We expect the timing to be similar in 2019. Males emerge a few days before females. Apparently, adults often feed in groups and start on the tops of plants and work their way down. Beetles feed between leaf veins, leaving a skeleton-like pattern. We have observed some limited adult feeding in a few spots. They don't feed on rainy days, and limited feeding on overcast days. They fly short distances (1-2 km) but can be moved farther by wind or in vehicles. Beetles live for 30-45 days. Females lay about 60 eggs in grassy areas in June-July-August. They mate

more than once and lay small batches of eggs throughout the summer. Eggs hatch within two weeks, in July and August. Small larvae feed on grassroots and grow to 1 cm long by the fall.

## Support Prevention and Movement Control Efforts:

Beetles can be transferred to new locations on the foliage of green waste such as lawn clippings. They are attracted to the volatiles that plants release after being cut in some way, such as mowing, pruning, or insect feeding. So, please abide by CFIA's movement control restrictions to keep the pest from spreading. Additionally, check your equipment and vehicles as the beetles can 'hitch a ride' to new locations. Larvae reside in soil usually under the turf and therefore can move to new locations through the transferring of sod or soil. To be safe, do not move any plants with soil outside the regulated area, and keep green waste on site until after October 10 and before June 15, which is when the beetles are not present. If there is a need to move soil or plants outside the regulated area, contact CFIA to discuss. A Movement Certificate is required to do so, which is issued by the CFIA.

## Watch for Japanese Beetle and Support Survey and Treatment Efforts:

Larvae cause similar damage to the turf as European chafer, which is rampant in Metro Vancouver, and around False Creek area, which is the epicentre of the Japanese beetle incursion. Any C-shaped white grubs found in turf in that area are probably chafer, but best to check them

out to be sure. Look at the thick hind-end of the grub (the raster); if you see two lines of short spines in a long and narrow V, it is chafer. If it is unclear, or you see a small v, have the grub checked out by CFIA or the BC Ministry of Agriculture. There are references online showing these differences between grub species.

Japanese beetle adults feed on the foliage of many species of landscape plants. In Vancouver, they have been spotted on roses and *Persicaria* (knotweed). Keep an eye out for the beetles on foliage in June, July and August around False Creek. If spotted, please catch the beetle, keep in the freezer, and report to CFIA, and ensure the turf in the area has been scheduled for treatment in 2019.

Treatment is occurring in the False Creek area by Vancouver Parks and private landscapers. We are applying Acelepryn; a larvicide applied to the soil with high water volume from April to August on all public and private turf in the area. Additionally, we will be using a new microbial insecticide, BeetleGone, as a foliar treatment to control any adult beetles feeding in the landscape beds around David Lam Park and surrounding areas. Although there have been few sightings of adult beetles feeding, there are previous sightings from 2017 and 2018 on both private and public landscapes. For both 2017 and 2018, CFIA has issued a notice to treat to the City of Vancouver for treatment of all public lands. To support the City's efforts, permission to treat private lands is being requested of owners and property managers by landscapers and the Ministry of Agriculture. Generally, the public's response has been favourable, and both public and private land treatments in 2019 are well underway.

*If there are questions related to treatment, please feel free to contact the BC Ministry of Agriculture at 604-556-3003 [SL](#)*

# CANADIAN FOOD INSPECTION AGENCY'S Support for the Japanese Beetle Eradication Effort

By Shannon Derkson, Canadian Food Inspection Agency, Burnaby B.C.

In the fall of 2017, the Canadian Food Inspection Agency (CFIA) confirmed the presence of the regulated and invasive pest Japanese beetle (JB) in Vancouver; the Province of British Columbia (BC), City of Vancouver, CFIA, Invasive Species Council of BC and BC Landscaping and Nursery Association agreed to work together on an eradication effort.

The CFIA and its partners are collaborating on a three-pronged approach, and its success requires:

1. **Establishment of a regulated area** with movement restrictions for soil and the plants this beetle attacks.
2. **A treatment program** has been established to target specific areas that indicated beetle sightings in 2017 and 2018.
3. **Compliance with regulations** from the public, landscaping and construction industries moving plants and soil out of the regulated area.

As the federal agency responsible for preventing the entry and spread of regulated plant pests in Canada, the CFIA has established a regulated area in Vancouver for Japanese beetle. This includes creating restrictions for plants and soil moving out of the regulated area.

Soil and rooted plants are regulated year round due to the presence of root-feeding larvae, as well as pupae and eggs of the Japanese beetle. Above-ground plants and plant parts, like prunings and grass clippings, are regulated from June 15 to October 15, when the adult Japanese beetle is flying. A CFIA movement certificate specifying proper disposal or treatment is required to move regulated items out of the regulated area.

For the JB finding in Vancouver, the City has permitted the disposal of eligible residential outdoor green waste in the municipal green bin program.

A temporary transfer station at West 1<sup>st</sup> Avenue and Wylie Street is open from June 15 to October 15 and will accept small amounts of soil and plant waste from the regulated area. Commercial operators are advised to contact the City regarding acceptable volumes of plant waste before using the transfer station. If the temporary transfer station cannot accept the material, contact the CFIA by phone at 604-292-5742 or by email to [cfia.wstjb-sj.acia@canada.ca](mailto:cfia.wstjb-sj.acia@canada.ca). Learn more about the coordinated response to eradicate Japanese beetle in Vancouver at [www.inspection.gc.ca/jb](http://www.inspection.gc.ca/jb). [SL](#)



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# Keeping your Green Roof GREEN

When we asked BCLNA's Landscape Advisory Group about topics for the BCSLA's Sitelines, they advised that maintenance of green roofs takes planning and a budget. We asked NATS Nursery, who specializes in green roof plantings, for their recommendations on this issue, to maximize the investment. Here's what Walt Pinder, from NATS LiveRoof Division provided.

**Here are a few simple rules** to maintain your extensive green roof.

**1. Sedums belong to the Crassulacean Acid Metabolism (CAM) family of plants.**

Sedums store water very effectively and shelter it from evaporation. The stomata in the leaves remain shut during the day to reduce evapotranspiration but open at night to collect carbon dioxide. Watering, when necessary, should be done at night to minimize evaporation and wind drift. Overhead, large droplet watering is most effective.

**2. Irrigate as needed, not on a schedule.** In the Vancouver area, sedums need little to no water except in the extended dry weather season. One-half inch of water every two to three weeks if the daytime temperature is over 25 degrees C. More green roofs suffer from overwatering than from under watering.

**3. Fertilize lightly; green roof plants should not create a mowing maintenance challenge.** Your green roof can be mowed to remove the spent flowers and seed heads in the fall. Remove these cuttings as they don't compose easily. Do not cut too short. Use a hedge trimmer-style machine, not a string trimmer. Cut the sedums, do not tear them.

**4. In the spring, a uniform mowing down to a 2-inch height will allow for a tidy appearance.** These cuttings can remain on the roof to compost. This gives shorter growing sedums a chance to compete and prevents a monoculture of only aggressive sedums from taking over. Likewise, the larger and aggressive perennial and grasses are also kept in check. Colour patterns and designs are kept fresh, looking too.

**5. Correct the pH for the plant mix annually.** Sedums like a high PH 6-9, perennials and grasses can have a lower PH 5-7.

**6. Be alert to the soil composition.** Drip irrigation is only effective in soils with high organic content. Most lightweight rooftop soils have a high inorganic composition (pumice, lava rock, limestone) which allow sedums to thrive. Water does not wick sideways well in inorganic soils. Also, the constant watering from a drip system provides too much water to suit most sedums.

**7. Weeding is generally a quick trip when done monthly.** A fast walk across the roof will allow the maintenance person a chance to deal with weeds when they are small and catch them before they flower and spread more seed. Problem areas of erosion or burrowing/nesting can be dealt with when the issue is new/small rather than waiting until it is a major problem. Tree seedlings can be particularly damaging to a green roof, and those seedlings need to be removed at the earliest stages.

Remember that a green roof is a valuable investment for the building owner and should be part of the building maintenance budget for an extended period – 10-20 years or more. Do not let this valuable investment be neglected for short term savings. [sl](#)



## CANWEST HORT EXPO

# Offers Top Notch Program for Landscape Professionals

Now in its 38th year, the CanWest Horticulture Expo is taking place September 25-26 at Tradex in Abbotsford. Organized and presented by the BC Landscape and Nursery Association, CanWest is the province's biggest horticulture event of the year, featuring over 300 booths and attracting over 2,500+ delegates from throughout the Pacific Northwest.

**BCLNA Chair**, Mike Mills of Sunshine Coast Nursery is excited for the 2019 show, stating, "It continues to grow in ways that benefit many areas of landscape including design, build, lawn care and maintenance, and urban forestry." Mike adds, "the combination of hands-on workshops, full day symposiums and 90-minute power sessions provides some pretty serious skill building and professional development opportunities."

BCLNA COO, Hedy Dyck says, "this year's program is very strong for landscape professionals with celebrity status speakers who have influenced horticulture."

- **Tracy DiSabato Aust:** Award winning garden designer and best-selling author.
- **Frankie Ferragine aka 'Frankie Flowers':** Canada's most popular and trusted gardening expert, four-time best-selling author, consultant and designer.

- **Dr. Linda Chalker Scott:** Renowned plant and soil sciences researcher, award-winning author of five books.
- **Paul Zammit, Nancy Eaton** Director of Horticulture at the Toronto Botanical Garden and Canada's most energetic and passionate plantsman.

The show will launch on Tuesday, September 24 with a full day program for designers – 'Designing Landscape in 3D Using Sketchup' with Mansoor Ma (LANDinc.). Two half-day workshops are offered this year: 'Building a Fusion Garden' and 'Mortar Setting Skills for Stone Paving'.

New elements added to this year's show include an Arbor Demo Zone that will focus on safety, and a Bug Zone where landscapers can obtain valuable resources on Ticks, Lyme Disease, Japanese Beetle, European Chafer, Aphids and more.

To complement this year's 'Vintage' Show Theme, the Tailgate Party on Opening Day will feature the Bruce Coughlan Trio, playing Classic 50's Rock & Roll. And Jack Ray will be featured on Day 2 rockin' the vintage banjo sounds.

Show Chair, Cable Baker of Down to Earth Landscapes adds, "The show provides an opportunity for companies to bring their staff, whether front line or management, to connecting with others in the aisles, seminar rooms and show lounge – facilitating a positive energy and excitement for the great industry we are fortunate to work in."

Registration opens in June. Members of the BCSLA receive preferred pricing. [www.CanWestHortExpo.com](http://www.CanWestHortExpo.com). **SL**

# Resilient Trees, Shrubs and Plants for the Landscape

By: Sandy and Sharon Howkins, Specimen Trees Wholesale Nursery, Pitt Meadows, BC



Top: *Acer Miyabei Rugged Ridge* Left: *Lonicera Pileata* Right: *Ginkgo B Mariken*. All images courtesy of author.

Climate change is becoming a key challenge when designing landscapes, even in temperate climates. BCLNA members, Sandy & Sharon Howkins, owners of Specimen Trees Wholesale Nursery Inc, are knowledgeable about specific attributes of plants based on their extensive experience in the family nursery business in Pitt Meadows. Their understanding enables them to recommend a selection of specific plants, to survive and thrive through the vagaries of the changing environment.

**Wetter cooler springs**, hotter drier summers and temperature extremes in the winters have become our norm. It doesn't matter if you are on the East coast or the West coast or somewhere in the middle; our seasons are more extreme and unpredictable making tree and plant selection a challenge.

What makes a plant resilient? In our opinion, one that can deal with wide temperature swings (-15°C to 32°C), wet ►

conditions, possesses heat stress capabilities, can tolerate different soil types (mainly compact soils) and digs and transplants well. The plant should also have other strong attributes, like seasonal interests such as spring/summer flowers (good for pollen & nectar for Honey bees, other insects and birds), have clean, pest-free foliage in the summer and good fall colour or other interests during its growth cycle. For trees, there should be minimal arbour care and mess.

As a grower, we at Specimen Trees Wholesale Nurseries are always looking out for resilient trees and shrubs to add to our product mix. Based on over 45 years' experience of propagating, planting, growing and supplying trees and plants for markets across Canada and the United States, here are some of the plants that are our choices for resiliency.

## Trees

**Acer miyabei 'Rugged Ridge,'** this maple is a J.F. Schmidt introduction. It is a Zone 4 tree that has excellent heat and cold tolerance. We find it very tough and durable and will tolerate lower pH soils (around 5.8pH). It has a semi-upright oval crown and beautiful ridged corky bark, growing to 16.5M high by 12M spread. Its foliage is light green in the summer and a clear golden-yellow in fall.

**Parrotia persica 'Inge's Ruby Vase'**<sup>TM</sup>, our Specimen Trees introduction. This upright Persian Ironwood is a Zone 4 tree that will grow to 6M high by 3M wide. It has a strong upright vase-shaped crown with a profusion of red caryophyllous flowers in the spring. Its leaves open ruby red and turn dark glossy green in the summer with sporadic red leaves showing themselves throughout the season — great fall colours of red, orange and yellow. In the winter the tree shows off its beautiful branching patterns, along with its exfoliating bark with gray, green, white and brown colourations — an all-around perfect tree with lots of interest throughout the seasons with no mess and minimal arbour care.

**Quercus x robur 'Heritage,'** this vigorous growing hybrid oak is a Zone 4 tree. It is



very tolerant of urban conditions and adaptable to wet or dry conditions. It grows to 15M high by 13.5M spread. Its dark glossy green foliage is mildew resistant and not bothered by aphids. Leaves turn a beautiful burnt amber-orange in the fall. Unlike other English Oak crosses, 'Heritage' does well in acidic soils.

## Shrubs

**Ginkgo biloba 'Mariken,'** this underused small tree needs zero husbandry. As a Zone 4 shrub, it will tolerate our dry, hot summers and our wet winters. It is a dwarf, compact, deciduous conifer with a semi-ball shaped habit that can be grafted with a low or high standard. It is covered with dense unique fan-shaped green leaves that turn a clear yellow in the fall. We recommend it for a beautiful

stand-alone accent plant in your planting beds or a container on the deck.

**Lonicera pileata,** also known as Privet Honeysuckle. This semi-evergreen shrub has horizontal branching with box-wood like foliage making it ideal for underplanting and as a groundcover. In late spring, small creamy-white flowers emerge that will eventually produce small blueberries in the winter. This shrub is almost bullet-proof, it can take dry conditions, full sun to part shade, pollution and is salt tolerant. It is a fast grower and responds to extreme pruning.

**Syringa x bloomerang,** this dwarf, re-blooming Lilac is a stunner. Not only are the flowers fragrant, but with light pruning throughout summer, it will promote new growth and constant blooming. This Lilac is a Zone 3 plant with dark green foliage.



Facing page: *Parrotia persica* Inge's Ruby Vase  
Left: *Echinacea Magnus Purpurea*  
Right: *Astrantia*.

Along with having excellent disease resistance to *Pseudomonas* and *Phytophthora*, it does well in our acidic soils unlike the vulgaris types that like alkaline soils. 'Dark Purple' and 'Pink Perfume' are two new introductions in the market.

## Perennials

**Astrantia**, this hardy (Zone 4) perennial grows as an upright clump which has rounded button-head or pincushion flowers surrounded by bracts. It can be planted in full sun but also makes an excellent woodland plant, or for planting along a stream/pond. Masterwort is available in red, white and pink and makes for an exceptional cut flower.

**Echinacea purpurea 'Magnus,'** this tried, and true perennial is drought tolerant and can withstand being planted in full sun and part shade. Purple Coneflower has large, deep-magenta daisy-like flowers with a brown-red centre cone that grow to 1M height. Perfect for attracting butterflies!

**Sedum x 'Autumn Joy,'** this Zone 3 Stonecrop grows to 75cm tall and has large succulent light green leaves. It can tolerate drought conditions in summer as well as wet conditions in the winter. It's dark pink to rusty-red flowers attract lots of insect life, including Honey bees.

Whether you are designing a street installation, a multi-faceted development, a manicured garden or something wild and wonderful, making the right plant selection will ensure your project endures the test of time. [www.specimentrees.com](http://www.specimentrees.com)

Specimen Trees Wholesale Nurseries is one BCLNA member with information and resources to share. Check out their plant availability – and that of other BCLNA members with either the printed or online version of the **BCLNA 2019 Buyers Guide**, or Google 'BCLNA online

**plant search'** to find complete listings of plants available from BCLNA members in a searchable database.

Need a printed Buyer's Guide? Email [info@bclna.com](mailto:info@bclna.com) with your name, address and the number of copies you need, with the subject line '2019 Buyers Guide'. [SL](#)

## Growing More Than Flowers

By: Catherine Kennedy, Communities in Bloom Executive Director, Surrey B.C.

**Don't let the name fool you.** the BC Communities in Bloom (BCCiB) program is not a flower growing contest. For 25 years it has been a symbol of municipal excellence showcasing the best in horticultural, environmental and community engagement.

The BCCiB is a program based on a set of criteria that helps to recognize communities for its effort in tidiness, environmental action, heritage conservation, urban forestry, landscaped areas and floral displays. The thread of community involvement weaves through each criterion, which makes this a valuable tool for our participants.

Creating a collaborative team, local committees work with municipals to help to gather volunteers from varied backgrounds such as landscape design professional, urban planner, master gardener, local media, economic development, chamber of commerce or business owner along with public works or parks & rec staff members.



Participants may use the BCCiB program to inspire local enhancement projects or to create more community engagement in their green spaces. The reasons for becoming a BCCiB participant are varied, and the benefits are numerous as our graphic demonstrates. Now more than ever, urban green spaces are becoming a natural remedy for our busy lives.

The BC Communities in Bloom program is a not-for-profit society made up of dedicated volunteers who are specialists in horticulture, parks & recreation and community engagement.

We welcome communities from around the province to participate in the BC Communities in Bloom program to enhance their hometown's unique potential and celebrate their successes. [SL](#)

# Is The Grass Really Greener On The Other Side?

## The 'Pros And Cons' Of Artificial Turf In The Landscape

By Fanny St. Hilaire, BC Landscape and Nursery Association, Surrey B.C.

This article is to highlight the pros and cons of artificial turf in the landscape and does not represent

the concerns for the use of artificial turf in sports fields or the use of crumb rubber infill. The BCLNA recognizes there is no consensus within the industry or among its members regarding artificial turf in the landscape. Both artificial and natural turf have various environmental impacts; however, more conclusive research is essential to create an accurate assessment. The health of urban ecosystems and the promotion of biodiversity should continue to be a prime consideration when designing, building, and maintaining urban spaces.

PROS	CONS
<b>Save water:</b> Artificial grass requires almost no watering. Water usage across the country increases by 50% during summer months. <sup>1</sup>	<b>Decreased environmental benefits:</b> According to the Journal of Environmental Quality (as cited by the National Association of Landscape Professionals) healthy lawns can absorb more than 6,000 gallons (22,700L) of rainwater, reducing erosion and filtering run-off. <sup>2</sup>
<b>Remove the use of chemicals:</b> Artificial turf doesn't require the use of toxic pesticides, herbicides, and fertilizers.	<b>It's plastic:</b> Most artificial turf consists of petroleum-based polymers.
<b>Save time:</b> Although it's not maintenance-free, artificial turf doesn't require mowing, aerating or fertilizing.	<b>Requires cleaning:</b> A lack of microorganisms means animal waste, debris and human residues are not broken down and will linger in the yard until hosed away or disinfected.
<b>Save money:</b> Industry experts claim within 2-5 years of installation expenses are offset by maintenance savings.*	<b>Expensive up-front costs:</b> When compared to sod, artificial turf installation can be expensive with the average cost of approximately \$12-\$14/square foot.*
<b>Always green:</b> Most artificial turf products are UV stabilized and won't fade, creating long-lasting green effects in the yard.	<b>No oxygen benefits:</b> A 50 x 50' lawn can produce enough oxygen for four people for one year. <sup>3</sup>
<b>Reduces risk to workers:</b> Some municipalities have opted to replace grass with artificial turf on busy meridians and boulevards, reducing the need to maintain areas that put workers at risk.	<b>Creates an urban heat island effect:</b> Natural turf creates cooling effects through transpiration, conserving energy use and reducing the need for air conditioning.
<b>Increase land use:</b> The versatility of artificial turf makes it ideal for many spaces. Use it in areas where natural plants and grass are impossible to grow or impractical.	<b>Increased noise:</b> When compared to hard surfaces, lawns and plants can reduce noise pollution by 20 to 30 percent. <sup>2</sup>
<b>Deter pests:</b> Base installation of artificial turf can remove favourable environments for pests such as the European Chafer and Japanese Beetle.*	<b>Loss of carbon sinks:</b> Natural, healthy turfgrass absorbs carbon dioxide and can sequester significant amounts of carbon.
<b>Durable:</b> Artificial turf can withstand high traffic areas, kids, pets and recreational uses in the yard.	<b>Increased risk of injury:</b> Natural turfgrass is soft and resilient, making for a safe surface for children to play on, with reduced injuries when compared to artificial surfaces.

PROS	CONS
<b>Long-lasting:</b> Most companies provide a minimum 8-10 year warranty, although residential applications can last anywhere from 15-25 years.*	<b>End-of-life:</b> Disposal has been an ongoing concern for artificial turf, with most going to the landfill. Companies are working towards recycling and repurposing artificial turf, but with facilities being overseas, shipping costs are posing an expensive challenge.

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## CSLA Fellows

## PROFILE OF



## Liane McKenna

BCSLA, FCSLA

### Choices, Choices

**As inevitably happens**, somewhere in one's High School years and beyond, the question of what to do with the rest of one's life comes up. While there were a number of choices for future careers, at the time many separated along gender lines – nursing and teaching for women; engineers, lawyers and doctors for men. Education in Landscape Architecture in Ontario then was in its infancy and in order to make the profession more broadly known, the University of Guelph was including its new program in its annual Open House weekend. A young graduating high school student

found her passion during that event and went on to complete her undergraduate degree in Landscape Architecture there in 1973 at a time when classes were small, design studios and critiques were the core of the teaching approach and broader courses in art and history joined the list of degree specific courses in presentation graphics, dendrology, agronomy, site design and surveying, to name just a few.

Summers between school years were the best times to expand both the knowledge and skills begun through my university education. Work at a local Toronto garden centre and experiences with Parks Canada

in the Maritimes, Provincial Parks in Ontario and work with a Landscape Architect in Alberta exposed me to Park Master Planning and design at all levels – local, Provincial and National. My interests became focused and the beginnings of my choices of roles in parks had begun.

### Roles in the Private and Public Sectors

After graduating from University and after almost a year with a Toronto based Planning and Landscape Architecture firm, I took an opportunity to work and travel in Japan, from Hokkaido in the north to Tokyo and several smaller cities to the south. The sensitivities to local, cultural and natural amenities etched themselves on my mind to be remembered and used in plans and designs over time.

Upon returning from Japan I joined the Niagara Escarpment Commission to assist ►

with the visual and physical assessment of development proposals and their impacts on a unique feature in southern Ontario, the Niagara Escarpment, which runs from Niagara on the Lake to Tobermory at the tip of the Bruce Peninsula. I also became a member of the OALA.

This work together with that at a local engineering firm in southern Ontario, added to my range of experience when I was hired by the City of Calgary Parks, Recreation and Culture Department in 1978 to manage their Design and Drafting Group and ultimately the Parks function city-wide. The City of Calgary was in the middle of an economic and development boom needing to plan for, create and build parks and recreation facilities in new communities in a coordinated way. These plans also assessed local natural features for quality, preservation and enhancement during the early days of environmental protection. Calgary also took a critical look at several of its larger sized parks such as Nose Hill, Nose Creek and Edworthy Parks and developed long term plans for their futures, most importantly with extensive public consultation. I was also a member of the AALA during this time.

In 1985 I joined the Recreation and Parks Department with the City of Scarborough and spent more than nine years continuing in a role of managing staff groups involved in planning, designing and operating parks and specialty areas in a relatively mature city. With several new communities in the north and east of Scarborough, strategic planning for both new and redevelopment and enhancement of parks and facilities was essential for the development of capital and operating priorities and budgets. Community consultation became an even stronger part of the role.

I joined the Vancouver Park Board in 1994 shifting roles to manage the park operations groups; City-wide and local parks, specialty parks such as Bloedel Conservatory, VanDusen Botanical Garden; Forestry; and Recreation facility maintenance.

Key to this work was coordinating with the Planning and Design Group and Recreation staff. After a reorganization of the Park Board in the late 90s, I took on the role of District Director of Parks and Recreation responsible for first the Queen Elizabeth and then the Vancouver East Districts until my retirement in 2010 including all of the parks and recreation facilities, revenue producing and specialty facilities and services. Community relations and work on the 2010 Winter Olympic Games were also important roles.

## Other Professional Roles

Beginning with my role on the Board of the BCSLA as the representative to the CSLA, I believe that contributing back to our profession is very important. After four years on the Board I was elected as President Elect of the CSLA to 2010 and served as

President in 2011 and Past President in 2012. I was honoured to be awarded the title of Fellow of the CSLA in 2011 in Iqaluit, Nunavut. I have also since been elected as a Director of the BCSLA for a two-year term beginning in 2018.

## Changes in the Profession

I have noted several positive changes in our profession; increasing awareness by the public and our clients of the roles that we play as Landscape Architects; expanded roles in the identification, the conservation and the enhancements of our environment and its ecosystems; public consultation – stronger linkages between community goals and professional resources and pioneering roles in climate action and adaptation.

Our future as a profession is bright. [SL](#)



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