

# DIGGING IN

NOVA SCOTIA HORTICULTURE FOR HEALTH NETWORK

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The Nova Scotia Horticulture for Health Network is a coalition of people interested in supporting horticulture for health initiatives through resource-sharing, exchange of practices/knowledge, and networking.



## Health Benefits of Food Gardening

By Lesley Fleming, HTR

Food gardening has long played a significant role in human history. Recent empirical evidence strengthens the connection between food gardening and health, demonstrating impacts in multiple health domains.

“A growing body of research suggests food gardening may offer a partial solution towards tackling a few of our most wicked social problems—including chronic disease, food insecurity, socioeconomic inequity, and shrinking social ties—this growth of food gardening... is arguably a welcome trend and one potentially worthy of public support and investment” (Porter, 2018).

**Improved nutrition** – People who grow vegetables are more likely to consume vegetables (Sommerfeld et al, 2010; Wright & Rowell, 2020). Fresh picked vegetables and fruits offer the highest vitamin content, with high levels of antioxidants (Rickman et al, 2007; Shetty et al, 2013). Research links high intake of fruits and vegetables with reduced risk of chronic disease including cancer and cardiovascular disease as well as improved longevity (Woodside et al, 2013; Soga et al, 2017; Romagnolo & Selmin, 2017).

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Photos page 1: L. Fleming, A. Katleg

The correlation between growing and consuming vegetables has significant impact on populations who do not consume recommended amounts of daily vegetables. Those most at risk of poor dietary behaviors and barriers to healthy eating include seniors, children and marginalized populations. Increasing numbers from at-risk groups are participating in community and school gardens, with the intent and outcomes measured by improved nutrition, health and lifestyle choices (Dyg et al, 2019). An emerging field - [nutritional cognitive neuroscience](#) - is exploring new connections (Rumiati & di Pellegrino, 2016; Zamroziewicz & Barbey, 2016; Gomez-Pinilla, 2010).

**Increased physical exercise** – The physical exercise gardening requires is both aerobic and muscular, considered moderate to high intensity when undertaken by adults, with vegetable gardening considered more active ([Park et al, 2014](#)). Physical benefits of gardening include improvement in melatonin production (regulating mood), hand strength, pincer grip, mobility, balance, and [cognitive brain function](#) (Soga et al, 2017; Park, 2019). Adaptive gardening techniques and garden accessibility features reduce physical barriers, supporting people with varying physical abilities to garden and be physically active (Morgan, 2019; Fleming, 2013).

**Improved mental health including relief from stress** –

The World Health Organization identifies [mental health](#) as a key component of health (WHO, 2003). Society's heavy reliance on technology and related tendencies to stay indoors increases levels of depression, stress and anxiety, with lowered probability of empathy and social concern (Selhub & Logan, 2012; van den Berg & Custers, 2011). Connecting with nature including gardening, has been identified as a strategy effective for combating societal ills. Community gardens, primarily food focused, are playing an important role in addressing the psychological aspects of modern life including sense of



Photo: B. Ellis

community and social cohesion (Hanson, 2012; Heilmayre et al, 2020). Other positive outcomes related to mental health and gardening include increasing self-esteem, improving mood, and sense of empathy, for example, when edibles are donated to those who are food insecure (Kaplan, 1973; Jackson, 2005).

**Promoting social connections** – Studies have shown that social connections are an important health determinant. Research links community garden participation with vegetable consumption, sense of wellness, community, and selflessness through food donations (Barnbridge et al, 2013; Alaimo et al, 2016). Several factors have contributed to an uptick in this form of social connection: greater awareness of food insecurity, food advocacy, [community gardening](#), and requests for gardening-based programs for seniors, incarcerated, and inpatient mental health services (Kyle, 2013; Cooper Marcus & Sachs, 2014; Bahamonde, 2019). Food gardening provides a cultural/social connection. Immigrant and indigenous populations use food plants, gardening and cooking as pathways for supporting and preserving heritage connections, and growing food not otherwise available locally; studies have shown deterioration of immigrant health due in part to transitions in dietary habits (Heilmayre et al, 2020; Fleming et al, 2020; Companion, 2017; Hartwig & Mason, 2016; Sanou et al, 2013). Newer approaches like ethno pharmacology are being used for addressing health inequalities and related public health strategies (McClure, 2015).

**Addressing food security** – Greater awareness of food borne pathogens has prompted increased surveillance and interest in origins of food, food production/handling, GMO seeds, pests and pesticides all under the umbrella of food security (Callejon et al, 2015; Tack et al, 2020). A second aspect of food security is access and availability to nutritious food, with studies documenting a disproportionate distribution of food insecurity in certain racial/ethnic groups, and direct correlations to poor health across the lifespan (McCormick Myers & Painter, 2017; Lee et al, 2012). Plausible evidence suggests that successful food gardening can provide nutritional and meaningful quantities of food, an effective food security strategy (Broad, 2016).

**Fostering healing and transformation** – Improving social capital, addressing food sensitivity, and [managing diabetes](#) are a few examples where food gardening can be transformative (Manian, 2018). Gardening supports child development including math and science skills, fine motor skills, nutrition and sense of responsibility, and with the proliferation of [school food gardens](#), food literacy has transferred food gardening knowledge and skills to children, families and staff for application in home gardens (McIsaac et al, 2015). Research cites food gardening as impactful for building resiliency, improving community connections, water quality (example of Wyoming Indian reservation), refugee and immigrant integration via vocational horticulture programs (Ovat & Zautra, 2013; Porter, 2018; Palsdttir et al, 2018). Programs addressing mental health challenges including eating, mood, and post-traumatic stress disorders have used food gardening activities as recreational and treatment interventions (Fleming, 2016; Jones, 2019).

**Sensory stimulation** – Food gardening and its ability to engage all five senses offers a non-medical/pharmacological intervention for conditions like anosmia, the impaired sense of smell, [gustatory dysfunction](#) (hypogeusia, ageusia, dysgeusia), the impaired ability to taste, and the combined impairment of smell and taste referred to as chemosensory dysfunction. Sensory impairments have significant physical and mental health implications related to loss of appetite, weight loss, COVID-19, neurological conditions, nervous system virus, depression, and anxiety (Speth et al, 2020; Boesveldt et al, 2013; Daly & Daly, 2012). Strategies for coping, as well as managing and improving sensory inputs include activities related to food gardening, tastings and cooking. These are used across health services for a range of health challenges including enhancing mood, stimulating desire to eat, rekindling of memories, strengthening other senses, and addressing [autism spectrum sensory challenges](#) (Middletown Autism Centre, 2020).



The health benefits of food gardening are multi-dimensional, impacting human health in social, physical, mental, and psychological domains. Gardening in general offers health benefits; [BMJ Open](#) peer-reviewed online medical journal published 77 studies in 2020 which cited physical benefits of gardening (Botts, 2020). Food gardening seems to heighten health benefits because of the dietary/nutrition element. The research cited in this article, not a definitive bibliography, is intended as a starting point for professionals interested in further investigations into specific areas relevant to their practices.

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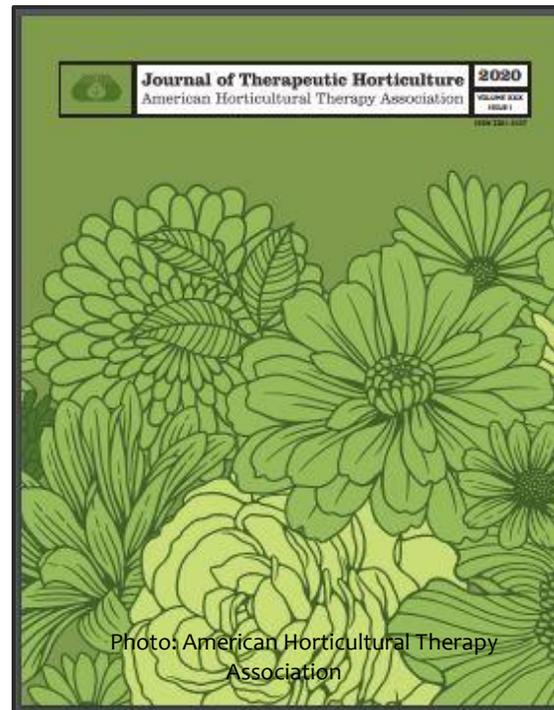
## Journal of Therapeutic Horticulture Publishes Nova Scotia Research

By Lesley Fleming, HTR & Kathy Carroll, HTR, MS

In late 2020 the *Journal of Therapeutic Horticulture* (JTH) published research about people-plant activity titled “[Nova Scotia’s Horticulture for Health Activity](#)”.

The [Journal of Therapeutic Horticulture](#), published by the [American Horticultural Therapy Association](#), has a well-established reputation as an indexed peer-reviewed journal with an international audience. It presents research, current trends and best practices related to horticultural therapy, therapeutic gardens, and special populations.

Author/practitioners Amy Unicomb Davis, BSc, MSc, Lana Bos, Dip OH, BSc, Lesley Fleming, MA, HTR, Janet Carter, BMusTH, and Beth House, BRec collaborated on the research, bringing together expertise across health services. As members of the Nova Scotia Horticulture for Health Network, their common interest has been how horticulture is used to improve health.



The paper’s abstract describes the scope of the research.

*“An examination of programs and services within Nova Scotia reveals horticulture for health activity that has been developed and expanded significantly from 2011 through 2019. Nova Scotia, a small Atlantic Canada province, has seen growing interest and use of programs, services and activities that utilize people-plant interactions as health strategies. From nutritionist-initiated school food programs and gardens, to urban farms, therapeutic horticulture networks, therapeutic gardens, and business ventures, these models reflect the Nova Scotian agrarian/historical/cultural context. The term horticulture for health began being used in 2018 to capture the scope of the horticulture-specific activities within Nova Scotia (Fleming, 2018).*

*The Nova Scotia example provides insight into current models where horticulture is at the forefront of health strategies that can be informative and effective for professionals from health services, landscape and horticulture, government and business sectors. These include models of horticulture-health programming and gardens, community capacity-building, collaborative initiatives, and development of plant-based entrepreneurial businesses” (Fleming et al, 2020).*

The research provides a framework of commonalities that improve health through horticulture across a vast spectrum, from school to business to private gardening. The research investigated horticulture for health activity in the province from several perspectives – institutional support, therapeutic

horticulture programs, healing gardens, food security/nutrition/public health strategies, and plant-based business ventures. A significant part of the research involved identifying horticulture-based programs and therapeutic gardens within Nova Scotia, which resulted in baseline data in these two areas (Davis et al, 2019; Carter et al, 2019). The research included personal communication with Nova Scotians from several sectors who were able to provide insight and data critical to understanding and identifying the nature and scope of horticulture-specific activity: Amber Walker, Healthy Built Environment Coordinator Public Health; Shelley Smith, CTRS and NS Community College Therapeutic Recreation Diploma Program faculty; Jerome Singleton, professor emeritus Dalhousie University School of Health and Human Performance; Janice Morrison, DipOH, retired horticultural therapist in Cape Breton; Aimee Gasparetto, Ecology Action Centre; Margo Riebe-Butt, Nourish Nova Scotia; and Brie Rehbein, Strategist, Dept. of Business NS, among others.



What is the significance of this research?

- Nova Scotia (Canadian) programs and models were presented on an international stage, demonstrating how horticulture-health activity can intersect business, government, landscapes, horticulture and health via multiple strategies particularly public health
- coordinated and coalesced horticulture-focused action tied social movement, food security advocacy, and health treatment models together to address cross sectoral issues
- multi-level governmental support of horticulture-health efforts included economic strategies and creation of a new business designation—[Community Interest Companies](#)—specifically for social enterprises and programs for marginalized or disenfranchised groups
- programs like [mobile food markets](#), [Food Upskilling festivals](#), cost-share food box programs, hospital initiated urban farms and public health staff-led community gardens were identified, seamlessly melded into current programs, business models, or available for implementation as new ventures using horticultural therapy best practices
- development within the horticultural therapy field, with identification and naming of food insecure populations as a new group within the purview of horticultural therapy; a population that can benefit from therapeutic horticulture, healing and community gardens where nutrition, access to food and food literacy are key determinants of health

The research paper concludes with the following:

“A dynamic period of change occurred in NS between 2011 and 2019, where health strategies included an increasing number of initiatives referred to as horticulture

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for health. An examination revealed an evolution of activity, diverse and multi-sectoral, with versatility capable of addressing deficits in all health domains, and focused on improving human health. The multi-faceted modalities spanned therapeutic horticulture, healing gardens, activity tied to food security, and business initiatives. Inventory for therapeutic horticulture programs and healing gardens, not previously captured, has been established as baselines.

The NS horticulture for health activity offers models and ideas that can be replicated by professionals across health, academic, government and business sectors. The NS example may be too unique as a model for other communities to replicate in its entirety but it offers a current context where traditional and innovative horticulture-centric strategies are being implemented. These include emerging special populations identified as food insecure, and related therapeutic horticulture programming focused on food security, delivered as public health strategies” (Fleming et al, 2020).

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Photo: M. Schiereck.unsplash

Unusual Edibles

## Vegetables on the Verge

By Lesley Fleming, HTR

Photos by O. Bridge

Incorporating unusual vegetables into a garden can be both rewarding and adventurous. There are many that are on the verge of immense popularity with North American gardeners. The following ideas were inspired by two Nova Scotians who really know veggies and who want to share new (to us) tasty, nutritious treats.

[Annapolis Seed Company](#) founder Owen Bridge offers heirloom and open pollinated seeds from his Nova Scotia company. His mission of seed diversity involves offering common and less common seeds for ornamentals and vegetables. Seeds for fall and winter edible greens include White Russian kale (*B. napus*) with tender leaves at maturity, or mizuna (*B. rapa*), a quick grower with slightly frilly leaves. Ground cherry 'Cossack Pineapple' (*Physalis pruinosa*) tastes like a cross between pineapple/blackberry/tomato in papery husks. Amarylla tomatillo, originally from Poland, matures in July, ahead of other varieties. Litchi tomato (*Solanum sisymbriifolium*), a 4 ft. thorny specimen is sweet and tart and fruits in early August. Root crops with unusual characteristics include red heart shaped Rossa di Milano onion, and Shosaku Gobo, a Japanese wild burdock biennial with long slender roots.



'Cossack Pineapple' tomatillo



Amarylla tomatillo



Rossa di Milano onion



Shosaku Gobo

Niki Jabbour, author and noted Nova Scotian plant person, has several books filled with rich resources for growing vegetables: *The Year-Round Vegetable Gardener* (2011); *Groundbreaking Food Gardens with 73 specialized garden plans* (2014); and her 2018 book, *Niki Jabbour's Veggie Garden Remix: 224 New Plants to Shake up Your Garden and Add Variety, Flavor, and Fun*, which was the 2019 American Horticultural Society Book Award Winner. *Growing Under Cover: Techniques for a more Productive, Weather-Resistant, Pest-Free Vegetable Garden* was published in 2020.

In *Veggie Garden Remix* Jabbour groups vegetables by similarities. If you like eggplant, she suggests trying unusual varieties like tear-dropped white 'Casper', pumpkin shaped 'Turkish Orange' or, non bitter Asian eggplants 'Millionaire', 'Ping Tung' and 'Bride', all maturing in less than 70 days.

Most unusual vegetables introduced in *Veggie Garden Remix*:

Celtuce- popular Asian plant, sometimes called Chinese lettuce, grown for leaves and crunchy stems with nutty flavor served roasted or stewed (*Lactuca sativa*)

Kalettes- part Brussel sprout, part kale, the ruffled foliage along stems are mild tasting, requiring 110 days to maturity (*Brassica oleracea*)

Uri or hosta shoots- edible for its leaves, stalks and flowers, *H. montana* variety grows in shade, needs moist conditions; shoots should be cut when just emerging in spring before leaves unfurl

Magenta Spreen- the purple flowers and edible foliage define edible landscaping, this cousin to quinoa contains oxalic acid which can be a dietary challenge for some (*Chenopodium giganteum*)

Hablitzia- fast growing perennial vine amaranth, related to spinach, has edible shoots, is cold hardy, and is grown in Scandinavia (*Hablitzia tamnoides*)

Senposai- nonheading with rosettes and very large cabbage-like leaves, it is mild-flavored and related to komatsuna (*Brassica rapa*)

Growing Chinese vegetables is on the upswing in North America too. Wendy Kiang-Spray suggests trying young luffa gourds, tasty when 4-6", Malabar spinach, [tatsoi](#), also known as flat cabbage or pak choi, gai lan Chinese broccoli (with edible stem, leaves and flowers), sweet potato leaves (not ornamental varieties), and orange (ditch lily) daylily buds and blooms (*Hemerocallis fulva*).

Yellow vegetables, less common in the garden, include: 'Sunburst' pattypan squash; yellow and light green streaked skinned 'Lemon' cucumber with thin spines; ping-pong ball shaped 'Snow White' indeterminate tomato; young 'Yellow Cylindrical' beets; 'Golden Sweet' snow peas with purple flowers; and bean varieties 'French Gold', 'Golden Sunshine' and heirloom pole 'Gold Marie'. [Winter squash 'Jumbo Pink Banana'](#) has salmon colored skin with gold flesh, mild nutty flavor and can grow to 40 lbs.

A few more vegetables to add spice to your garden - actual vegetables that are spicy flavoured. Hot peppers like 'Chinese Five Color' become hotter with maturity, red 'Brazilian Starfish' medium hot, or 'Bulgarian Carrot' pepper with a Scoville rating of up to 30,000. Peppery flavoured vegetables that provide sensory stimulation: arugula 'Green Spray', or mustard varieties 'Ruby Streaks' and 'Red Giant', sweet-spicy 'Purple Dragon' carrot, purple on the outside and orange inside, and 'Red Creole' bulb onion. Radishes like wasabi-flavoured 'Chinese Green Luobo', 'German Beer' and 'Shinnrime!' with neon pink flesh have a bite too.

An important trend in vegetable growing has been the influx of edibles from around the globe. The greater availability of seeds online, interest in ethnobotany and food traditions, and broadening inclusion of immigrant gardeners within communities, especially at community gardens, have contributed to the expansion of plant options and palettes.



Japanese White eggplant



Photo: P. Lollard. unsplash



'Turkish Orange' eggplant

Series

## The Treatment Process: Goal-setting

Text & photos by Lesley Fleming, HTR

Many disciplines, including horticultural therapy, use treatment processes when working with people seeking health improvements. The four main components of the process and of a treatment plan—assessment, goal-setting, therapeutic activity, and measuring outcomes—are essential for not only achieving the desired health outcomes, but for delivering quality treatment based on standards of practice. A four part series will focus on each of the component parts of a treatment plan.

### The Treatment Process—Goal-setting

Setting effective goals for individuals undergoing treatment is essential for health improvements. Though treatment activities may occur in group settings, the goals are individualized, based on the person's needs/aims/concerns, health challenges, short and long term objectives. The client is part of the process including setting goals. Across therapeutic disciplines the acronym SMART guides practitioners in writing goals that are behavioural, observational and measurable (Sieradzki, 2006 & 2017):

**Specific:** States exactly what the client will accomplish

**Measurable:** Has the number of items or times something will be done

**Action-oriented:** Tells how the goal will be achieved—stated using a verb

**Realistic:** Enough to be challenging but not too difficult

**Time-based:** Has an end point or deadline

Sarah Sieradzki, a horticultural therapist and occupational therapist, has written extensively on treatment processes. She provides examples of goals for a variety of populations and health challenges in *Horticultural Therapy Methods Connecting People and Plants in Health Care, Human Services, and Therapeutic Programs Chapter 6 Documentation*, and in [Appendix 1: Goals, Activities and Measurements](#) (Haller & Capra; 2017). Sieradzki clearly links the relationship between each of the treatment components, so that the goals, activity intervention, and outcome become an effective process. Fleming's article [Treatment Plans: Bringing Some Simplicity to a Complex Process](#) also provides a useful framework (2016).



Practitioners may find that the same goals are used repeatedly. For those working with populations that have limited number or similar health challenges, it may be that the therapeutic goals are not as varied as other cases. For example, physical rehabilitation improving shoulder range of motion to 80% function may not have as many therapeutic goal for someone with a brain injury that may span several health domains. Working as part of an interdisciplinary treatment team may also direct goal-setting

where multi-domain health challenges are addressed using a range of therapeutic modalities. What might be a horticultural therapy intervention may overlap or duplicate occupational or physical therapy activity. Horticultural therapy offers unlimited therapeutic activities with practitioners flexible in modifying or adapting to the client's needs.

Another valuable resource re goal-setting and treatment processes is the 2016 *Journal of Therapeutic Horticulture* 26(1) which published 3 case studies.

Case Study- Rebecca, a 6-year-old girl participated in the 2015 Pediatric Summer Camp designed by the Pediatric Occupational Therapy Department at Rusk Rehabilitation/Hospital for Joint Disease (HJD). Therapeutic goal was "to increase her Range of Motion (ROM), using bi-manual exercises for grasping and passing objects. Her HT Treatment Plan goal was to utilize plant-related age-appropriate Right Upper Extremity Exercises (RUEE) to increase strength, dexterity and flexion" (p.21). Author Ciri J. Malamud, MA, CRC, CSW, LCADC

Case Study- Sara, "Caucasian female with cerebral palsy. She uses a motorized wheelchair that she operates by a joy stick with the thumb and index finger of her left hand. Sara has significant involuntary movement of her arms (left side more than right which tends to be held close to the body) and her legs scissor when she gets excited...Long Range Goal: "Work as independently as possible to plan, plant, care for and harvest an herb garden." (pp.26-27). Author J. Lane, HTR

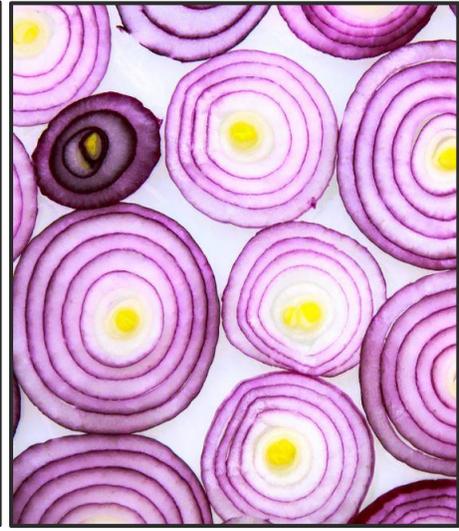
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Sieradzki, S. (2006). Measuring and Documenting treatment effectiveness for individual or groups receiving horticultural therapy. In Haller & Kramer (Eds.) *Horticultural Therapy Methods Making Connections in Health Care, Human Service, and Community Programs*. New York: Hawthorn Press.

Sieradzki, S. (2017). Documentation The professional process of recording treatment plans, process, and outcomes. In Haller & Capra (Eds.) *Horticultural Therapy Methods Connecting People and Plants in Health Care, Human Services, and Therapeutic Programs* 2<sup>nd</sup> Ed. Boca Raton, FL: CRC Press.



Lesley Fleming, HTR has been active in the field of horticultural therapy for more than a decade, with recent research focused on dementia populations. In 2020 she and co-authors A. Davis, L. Bos, B. House and J. Carter had their peer-reviewed article 'Nova Scotia's Horticulture for Health Activity' published in the *Journal of Therapeutic Horticulture*.



Series

## Plant Activities Using Vegetables

By Lesley Fleming, HTR & Susan Morgan, MS

Photos by L. Fleming, W. Gunkel & M. Haupt. [unsplash](#)

Using a variety of materials for plant-based programming keeps participants engaged. Vegetables, for example, can provide an unlimited source of materials for diverse hands-on activities.

**Plant and eat the rainbow** – Plan, plant and eat edibles inspired by the colors of the rainbow. Sequence this as a multi-session progression. [Studies](#) prove that vegetable consumption increases when home or school grown.

**Name vegetables A through Z** – A good group activity that can be combined with literacy, cooperation skills, art and science, this can be a game interesting for all ages, naming vegetables for each letter of the alphabet. Refer to Lois Ehlert's *Eat the Alphabet* book for ideas. Adaptations can include painting a rain barrel, mural or garden sign using the letters and vegetables theme.

**Taste and spit** – Focusing on sensory stimulation using taste, smell, touch and hearing, introduce common and less common vegetables, allowing participants to have fun spitting out flavors they don't like. Talk about sweet, salty, sour, bitter, and umami flavors, with direct relevancy for populations with sensory deficits due to cancer, COVID-19 or medication side effects.

**Make a recipe** – Create a new [recipe](#) or use an existing one highlighting vegetables direct from the garden. Tasty ideas: kale chips, fruit & veggie smoothies, carrot soup, beet hummus. Or create a cookbook as a group or fundraising project.

**Vegetable stamp art** – Use celery, apples or potatoes to make stamps. Cut produce in half vertically and horizontally, or carve a pattern in edible (adult or therapist supervision may be required). Using non-toxic inkpads, plant-based dyes or washable paint decorate notecards, aprons, garden gloves or wrapping paper. Excellent activity for symmetry and patterns, mirror images, and math lessons.

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**Math, measuring and STEM integration** – How can vegetables or other garden items be used for measuring? How many cucumbers fit into a basket? How tall is the bean teepee? Extend this into comparing and contrasting, group work, designing a garden, and STEM (science, technology, engineering, math) lessons.

**Ethnobotany concept** – Use the concept of ethnobotany—plants grown and associated with ethnic and indigenous groups, and/or specific geographical locations—to learn about vegetables, other cultures, peace initiatives and [global gardens](#).

**Make plant dye** – Plums, carrots, beets and red cabbage can be used as fabric dye. Chop produce and bring to boil using two times the amount of water. Let steep for an hour, longer if more saturated color is desired. Add salt (for berries) or vinegar fixative before dyeing fabric.

**Radish seed necklace** – Germinate a radish seed inside a small plastic bag, adding a piece of yarn for the necklace, creating plant jewelry. Other quick germinating seeds will work too. And then transplant these in the garden. Consider water cycle bracelet, bat ring or flower corsage.

**Plant part rap** – Junior Master Gardener program created a [plant parts rap](#), encouraging kids to rhyme, integrate music into gardening, and learn about plant growth. Lots of fun with all ages... can elders rap? Absolutely!

**Plant labels** – Create art and signage by repurposing vegetable seed packets. Laminate or decoupage paper packets, attaching them to stakes, and planting in the garden.

**Composting**– Practice [composting](#) using vegetable peels or rotten produce. Build or assemble a compost bin, start a compost club, or play a game promoting physical activity - *Who can throw or walk to the compost heap* – eating nutritional produce, then composting leftover skin/seeds/peel?

*Susan Morgan, MS presented at the American Horticultural Therapy Association's 2017 conference with a session titled Activities Reimagined. Her blog [Eat Breathe Garden](#) offers interesting activities with a range of materials, all related to plants. Lesley Fleming, HTR incorporates activities from her Artist Training Certificate into HT/TH programming.*



## HT Activity Plan – Making Salsa

Text by Kathy Carroll, HTR & Bob Carroll

Photo by S. Adel.unsplash



**ACTIVITY DESCRIPTION:** Making nutrient-dense salsa from fresh garden produce.

**THERAPEUTIC GOALS:**

Physical: maintaining hand dexterity, strength and pincer grip

Emotional: focusing on self-care, well-being, cooking life skills

Intellectual: learning about nutrition, cognitive practice of following sequential steps

Social: group cooperative activity, teamwork, collaboration, socializing

**STEP-BY-STEP PROCESS:**

1. Set up work stations; each participant has cutting board, paring knife, apron, gloves, with measuring cups & spoons available
2. Review food safety guidelines and hygiene protocols for activity (washing station, garbage)
3. Demonstrate cooking/cutting techniques. Write recipe & tips.
4. Divide into 6 (groups or individuals) each given specific task or ingredient to prepare:
5. Ingredients: Six ripe tomatoes chopped and salted with ½ t salt; ½ green pepper chopped (seeds removed); ½ medium onion chopped; optional 1 medium Jalapeno pepper (seeds removed); measured ingredients of 1 T minced garlic, ½ T olive oil, ½ T apple cider vinegar, ¼ t pepper, dash cumin cilantro
6. Each participant prepares their assigned ingredient, measuring & adding to large bowl when directed
7. Prepare for tasting with chips, crackers and salsa, served room temperature or refrigerated up to 2 weeks if it lasts that long!
8. Clean work space, reviewing best practices for food prep, refrigeration, and sanitation
9. While eating salsa, discuss [nutritional value of ingredients](#), benefit of good nutrition, and cost of eating healthy

**Materials**

Recipe:

- 6 medium tomatoes
- ½ green pepper
- ½ medium onion
- 1 Jalapeno pepper
- 1 T minced garlic
- ½ T olive oil
- ½ T apple cider vinegar
- ¼ t pepper
- dash cumin cilantro
- chips, crackers
- knives, cutting boards,
- bowls, spoons,
- measuring cups,
- aprons, gloves, plates

**APPLICATIONS FOR POPULATIONS:** This activity can be delivered as individuals making salsa or as a group activity. It is appropriate for most populations. The salsa activity lends itself to a variety of themes: nutrition, life skills, sensory stimulation, ethnobotany, cooperative work, or food security. Tasks can be supervised so that all levels of intellectual abilities can participate.

**SAFETY CONSIDERATIONS:** Essential to check with staff and individuals before the activity for allergies, swallowing difficulties, contraindications with medication. Leader needs to be aware of items being put in mouths prior to conclusion. Use of sharp knives may not be appropriate for some populations. Some cutting can be done by leader or by using plastic knives, not so sharp.

**NOTES OR OTHER CONSIDERATIONS:** This activity provides integration of garden produce, often in great supply during summer months, with other concepts like lifestyle choices, how to prevent food spoilage, healthy food options not requiring cooking/heat, and food preferences.

## REFERENCES/ RESOURCES:

Nourish Nova Scotia (2020). Recipes. Retrieved from <https://www.nourishns.ca/recipes>

Zanini, L. (2017). 10 Reasons your body will thank you for eating salsa. *Healthline*. Retrieved from <https://www.healthline.com/health/food-nutrition/10-reasons-your-body-will-thank-you-for-eating-salsa>

HT Activity Plan form developed by Lesley Fleming, Susan Morgan and Kathy Brechner 2012, revised in 2018.

## Salad in a Jar



### Ingredients

Pick your favourite, seasonal salad ingredients and follow this guide to layer them in a jar for a perfect packed lunch. Invent 5 different combinations on Sunday, assemble the night before, and you have delicious, nutritious lunches for the entire week!

### Directions

**Step 1:** Dressing on the bottom. Use 1 tablespoon of your favourite dressing. Try an olive oil vinaigrette to get a dose of healthy fats!

**Step 2:** Wet ingredients. Fruits and vegetables that are high in moisture should be your next layer. Try, cucumbers, oranges, clementine, apples, pineapple or berries.

**Step 3:** More veggies. Pile in the rest of your veggies. Try carrots, broccoli, cauliflower, peppers, onions, avocado, cabbage or snap peas!

**Step 4:** Source of protein. Add a source of protein to make sure your salad will fill you up. Try chicken breast, tuna, salmon, turkey, tofu, hard-boiled egg, chick peas, cottage cheese, nuts, seeds, or quinoa!

**Step 5:** Leafy greens. Keep your greens on top to keep them from becoming mushy before lunch time! Try baby spinach, arugula, romaine lettuce, iceberg lettuce, mixed greens, green cabbage or spring mix!

**Step 6:** Mix and enjoy!

From Nourish Nova Scotia

<https://www.nourishns.ca/all-recipes/2018/8/salad-in-a-jar>

## Harvested More Edibles Than You Can Use? Freeze Them!

Text by Lesley Fleming, HTR

Photo by B. Karaivanov.unsplash



Freezing produce is a great way to avoid spoilage and eat healthy. A 2020 [article from HGTV](#) inspired these tips:

**Spinach:** Place in steamer basket and steam blanch spinach leaves for 2 minutes keeping them above boiling water. Dip in ice water, spin dry, stuff leaves in freezer bags with no more than 2 cups per bag. Frozen spinach lasts up to 14 months.

**Strawberries:** Using dry sugar method, wash strawberries, drain, hull & cut into pieces. Sprinkle  $\frac{1}{2}$  cup sugar per quart to coat. Place in zip bags. Good for 1 year. To freeze whole strawberries rinse, let dry, place single layer on baking sheet, cover with plastic wrap and freeze for 4 hr. Transfer to zip bags. Good for 1 year.

**Green beans:** Trim ends, cut into pieces, blanch in 1 gallon water per pound bean for 2-4 minutes then immerse in ice bath. Drain and put into zip bags. Good for 8-10 months and less rubbery than canning.

**Tomatoes:** Drop tomatoes into boiling water to blanch for 60-90 seconds. Immediately transfer to ice water and cool. Remove skin & stems before transferring into zip bags. Freeze. Good for 12-18 months. Freezing cherry tomatoes - wash & dry, then freeze on cookie sheet. Once frozen solid, put into zip bags.

**Broccoli:** Cut broccoli into ½” florets, removing stems, leaves. Steam for 5 minutes or blanch for 3 minutes. Cool broccoli in ice water for same amount of time as cooking, then dry. Put into zip bags, trying to lay pieces flat. Good for 1 year.

**Apples:** Peel, core & slice. Dip into water/lemon juice mixture (1 T per gallon) to prevent discoloration. Place on tray and freeze for couple of hours before placing in zip bag for hard freeze.

**Corn:** Two methods available. Freeze whole cobs, blanching for 7-11 minutes based on diameter. For corn niblets, cut off cob 2/3 of depth & blanch for 5 minutes. Cool either type for same amount of cooking time. Freeze.

**Kale:** Steam blanch leaves for 2-5 minutes, covering floating leaves in boiling water. Place in ice water for same time as cooking. Dry leaves by rolling in towel squeezing out excess water. Put in zip bags for freezing. Kale can be frozen without blanching but it must be used before 6 weeks and may be bitter.

**Onions:** For chopped onions, place in zip bag, removing required amount once frozen. Ensure airtight seal to avoid freezer odors. Blanch whole onions 3-7 minutes ensuring onion center is blanched.

**Asparagus:** Clean scales and remove tough ends, blanching smaller spears for 2 minutes & medium spears for 3. Ice water bath not necessary. Dry before freezing. Freeze as soon as possible.

**Garlic:** Freeze whole or individual cloves peeled or not peeled. Place in airtight (or 2) containers so that odor doesn't leak.

**Eggplant:** Blanch eggplant after washing, peeling & slicing into ¼” pieces. Place in blanching water (with ½ cup lemon juice per gallon water) for 4 minutes, then cool and freeze. Good for 1 year.

**Brussel sprouts:** Blanch sprouts by size; 3 minutes for small, 4 minutes for medium. Ice and freeze using single layer first freeze method, transferring them to zip bags for final freeze. Good for 1 year.

**Mushrooms:** Blanch in steamer basket above boiling water for 5 minutes, 3 minutes for pieces or slices. Cool quickly in ice water for same time as cooking. Freeze. Good for 1 year.

## Potager Gardens: Applications for People-Plant Programs

By Lesley Fleming, HTR

*The traditional kitchen garden, called jardin potager using the French term meaning 'for the pot', dates back to the French Renaissance and monastery gardens. Designed similar in layout to a parterre, low hedges surround rectangular beds and formal paths arranged in a geometric pattern with a focal point in the center. Intermixed plantings of ornamentals and edibles provide food and visual appeal.*



How can potager gardens support people-plant programming? Two attributes of potager gardens should be considered: potager gardens used for food production, and the first iteration at French monasteries as gardens for restoration. Though a potager garden may not fulfill all requirements for people-plant programming, it can augment other parts of a garden, offering benefits other planting areas do not - an interesting mix of function and form, with aesthetically appealing design, production of edibles, with a historical backstory.

Potager gardens used for restoration and mental repose can offer multiple benefits. People-plant programming for those who benefit from sanctuary, meditative, enclosed and aesthetically pleasing gardens include veterans, victims of trauma, first responders, and those focused on wellness strategies. While many think of potager kitchen gardens in the context of growing and harvesting edibles, it can also provide passive, reflective experiences. Or intellectually focused activities like vocational training in garden design, nutrition literacy, or ethnobotany lessons with plants as cultural connections. Restorative outdoor spaces can take many forms and potager gardens should be included. They offer an interesting mix for active (gardening) and passive (reflective) engagement in a garden setting, a hybrid of garden activities and garden plants.

People-plant programming at community and school gardens typically focus on growing edibles. Thoughtful design of beds can incorporate elements of potager gardens including geometric layout and central focal point, often without additional cost. Consideration for garden capacity sufficient for the number of participants and/or the amount of food to be grown, along with garden accessibility needs should guide the garden design. In these settings, potager gardens can be used as demonstration space providing horticultural guidance re intermixing of ornamentals and edibles. More orderly than the hodge podge look of individual plots at community gardens, potager gardens

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can be a focal and gathering spot within the garden. In school settings, potager gardens can offer a garden “room”, private when surrounded by hedge, and appropriate for one on one counselling, time out, or green space for staff decompression.

Potager gardens at residential facilities for seniors, mental health inpatient hospitals, and even correctional facilities may be installed to function primarily as vegetable gardens. These facilities often use edibles grown on-site (in compliance with food safety regulations). Depending on the volume of produce required, some gardens may grow edibles in rows, while incorporating a decorative focal point or garden alongside. For elder populations, kitchen gardens, popular in the 30’s-50’s, provide reminiscences from their early years, with the added bonus of an attractive garden design when viewed from buildings’ higher story balconies and windows.

Botanical and public gardens, with their educational and plant aesthetic mandates, often include potager gardens in their demonstration areas. Visitors, especially home gardeners and people interested in self-care learn how to combine edible and non-edible plants from potager gardens. For therapeutic horticulture, wellness workshops or special events, the potager garden can be lovely when lit at night, as well as a source for edible and other workshop materials.

Cuthbertson, Y. (2011). *The Organic Vegetable Gardener*. East Sussex, UK: Guild of Master Craftsman Publications Ltd.

Jones, L. (1998). Learn how to create a potager: A French kitchen garden. *Brooklyn Botanic Garden*. Retrieved from <https://www.bbg.org/gardening/article/potager>

O’Neill, A. (1983). The gardens of 18<sup>th</sup>-century Louisbourg. *The Journal of Garden History* 3(3); 176-178.



Professional Practice

## Universal Design: Gardens

Reprinted with permission from American Society of Landscape Architects



Boston Public Garden has wide flat pathways and seating located throughout extensive public gardens. Boston Public Garden, Boston, Massachusetts / Friends of the Public Garden

Community and botanical gardens, which are sometimes found in parks, offer places of respite, opportunities to retreat and experience nature. There are many mental and physical [health benefits](#) to experiencing nature, but often gardens are designed in a way that limits access, decreasing the number of people who can enjoy them.

[Sensory](#) and [therapeutic](#) gardens can be beneficial to people with disabilities, who can enjoy the experiential array of visual, tactile, and olfactory sensory information. Spending time in these gardens, or engaging in the practice of gardening are types of [horticultural therapy](#). Engagement with all the senses has been a [traditional part](#) of garden design, something lost in many modern gardens.

Gardens are a foundational form of landscape architecture. By applying universal design principles and including people with disabilities in the planning and design process, landscape architects can ensure gardens maintain their cultural importance into the future. Inclusive gardens include:

**Seasonal planting:** Choose a plant palette that highlights seasonal change through color, allowing those with neuro-cognitive disorders to [track temporal changes](#). Plants that are non-toxic and non-thorny should be chosen so visitors can safely engage with the therapeutic benefits of nature. High contrast plantings help those with low vision to navigate spaces.

**Circular or figure-eight paths:** 6 out of 10 people with dementia [wander](#). In gardens specifically designed for people with Alzheimer’s disease or other forms of dementia, circular, or figure-eight paths, with a single entrance, promotes [walking as a directed activity](#), while limiting risk of wandering. In such spaces, a well-designed boundary to the garden disguised with planting is essential to prevent wandering and “elopement.”

The [Portland Memory Garden](#), designed by Oregon ASLA as a pro-bono project led by Mark Epstein, Richard Zita, and Brian Bainnson, ASLA, is located within Ed Benedict Park in Portland, Oregon, and created for people with Alzheimer’s to exercise through safe walking. The circular walking path, with a single entry point, eliminates wayfinding concerns, focusing visitors on the act of walking. A fence encloses the garden, creating a single entry and exit point to reduce the risk of wandering. Benches along the path provide plenty of opportunities to rest, for both those with Alzheimer’s and their caretakers. Tree cover and lush planting make the garden a serene environment. Bathrooms are located with a clear line of vision so visitors can quickly reach them if the need arises.



The Portland Memory Garden is designed for Alzheimer and dementia patients that are living with dedicated caretakers. The circular path, with a single entrance, encourages people to walk without the need for wayfinding. Seating around the edge of the walkway allows visitors to rest if they need to. Koch Landscape Architecture, Oregon ASLA Community Project led by Mark Epstien, Richard Zita, and Brian Bainnson, ASLA, Portland, Oregon / Brian Bainnson

**Frequent, flexible seating:** Seating with arm rests and backs should be scattered throughout the garden. Placing seating in shade helps to reduce sun exposure and increase time that can be spent outside. Flexible seating that is light enough to move encourages social engagement while in the garden.

**Multi-sensory wayfinding:** Specific smells or sounds should indicate transitions within a garden to increase the number of people who can navigate a garden independently. These markers can jog the memory of those with dementia and indicate potential hazards for people with low vision. Water is a good acoustic wayfinding method, but should be introduced safely.

The [Elizabeth and Nona Restorative Garden](#) in the Cleveland Botanical Garden, designed by Dirtworks, PC, uses multi-sensory navigation to help blind people or those with low vision, such as changes in humidity and temperature and the sound of water trickling down stones, near the water.



The Elizabeth and Nona Restorative Garden has low walls, that can be used as seating, but also allow wheelchair users to engage with the plantings and water features in the garden. ASLA 2006 Professional Honor Award. The Elizabeth and Nona Restorative Garden Cleveland Botanical Garden, Cleveland, Ohio. Dirtworks, PC / K. Duteil

**Limited level changes:** Gardens that are flat are safer for those who are blind or have low vision, wheelchair users, or those with cognitive disabilities. Grade changes lacking visual or tactile cues can be trip hazards for deaf and hard of hearing people who rely on sign language and visual lines of sight. If level changes are necessary, use multi-sensory wayfinding, including tactile paving, methods to mark these locations.

**Easily accessible bathrooms:** Restrooms should be located within line of sight to ensure easy access to all visitors. Signage should be located throughout the garden to indicate the location of the nearest restroom to ensure quick access when the need arises.

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**Engagement:** Direct engagement with growing plants fosters community and can [combat loneliness](#) and offer intergenerational connections, among other benefits. Raised beds provide easier access to the soil and can provide seating or wheelchair access throughout the garden. Gardening has also shown to be [beneficial](#) for people with mental illness, cognitive disabilities and autistic, or otherwise neurodivergent people.



Pashek + MTR co-designed the Buehler Enabling Garden at the Chicago Botanical Garden with Gene Rotherth, founding director of the enabling garden, who uses a wheelchair. Raised beds of varying heights provide access to horticultural therapy for users of different kinds of wheelchairs, blind or low vision people, those who use walkers or want to sit and garden. Raised beds lined with stone walls provide informal seating for all visitors along with benches. Buehler Enabling Garden at the Chicago Botanical Garden, Chicago, Illinois, Pashek + MTR / Clare Cooper Marcus

**Safe materials:** [Safe materials](#), suitable for gardens, are low-glare, not slippery when wet, flat, have high contrast between each other, and tactile. Textural contrast, of both hardscape and natural materials, provides greater clarity for people with low vision and allows for a sustained line of sight for deaf and hard of hearing visitors as they sign. Eliminating glare, both from ground materials and the sun, is also important for those who use sign language.

**Secluded areas:** Areas to engage in private contemplation or to isolate from sensory stress should be located throughout the garden. For autistic people, secluded areas help manage overstimulation. Muted colors in these areas can [reduce chances of further overstimulation](#).

[Editor's note: Refer to <https://www.asla.org/universalgardens.aspx> for additional resources and projects that are included in original publication]

Horticulture Techniques

## Deer Ready Gardens and Deer Resistancy Rating for Plants

By Lesley Fleming, HTR

Photos by Proven Winners

Maybe think in terms of deer resistant gardens. Unless you like tall fences.

Most advice for protecting landscaping from deer is to select certain plants that wildlife don't like. Usually recommending thorny or fuzzy plants, "experts" include plants that contain poisonous compounds. But these do not always deter deer. Interestingly, a rating system for plants that are deer resistant has evolved. Developed by Rutgers New Jersey Agricultural Experiment Station, their rating system uses four levels of deer resistance:

**A=rarely damaged**

**B=seldom severely damaged**

**C=occasionally severely damaged**

**D=frequently severely damaged**

The Rutgers deer resistancy rating website [njaes.rutgers.edu/deer-resistant-plants](http://njaes.rutgers.edu/deer-resistant-plants) has a searchable list of landscape plants. It recommends that A and B category plants are best for gardens prone to deer. Category C and D plants probably need additional protection (fences, repellants). Note that no plant is entirely deer proof. Factors that play into deer tastings include time of year/season, availability of food, cultivars, age of deer, and weather.

### Category A deer resistant plants:

Himalayan maidenhair fern (*Adiantum venustum*)  
 'Ghost' fern (*Athyrium 'Ghost'*)  
 annual vinca (*Catharanthus rosea*)  
 Dusty Miller (*Centaurea cineraria*)  
 'Celebration' blanketflower (*Gaillardia grandiflora*  
 'Celebration')  
 'Lemony Lace' elderberry (*Sambucus racemose* 'Lemony  
 Lace') (photo top right)  
 Monkshood (*Aconitum sp.*)



Sweet Woodruff (*Galium odoratum*)

### Category B deer resistant plants:

Aster (*Aster sp.*)  
 Baby's Breath (*Gypsophila sp.*)  
 Bachelor's buttons (*Centaurea cyanus*)  
 Beebalm (*Monarda didyma*)  
 Black-eyed Susan (*Rudbeckia sp.*)  
 Bridalwreath Spirea (*Spiraea prunifolia*)  
 Lilac (*Syringa vulgaris*)  
 Forsythia (*Forsythia x intermedia*)  
 Purple Coneflower (*Echinacea purpurea*)  
 Yarrow (*Achillea filipendulina*) (photo bottom right)



## **Human Health & Plants Research: Study of the Benefits of Horticulture for People with Mental Illness**

By Charles Guy, Ph.D, Department of Environmental Horticulture, University of Florida

Original publication *Wilmot Botanical Gardens Newsletter* 5(3). Reprint permission granted by author.

The idea of digging in a garden and engaging in agriculture as being beneficial for mental illnesses dates to the writings of Dr. Benjamin Rush in the early 1800s. Recently Siu and colleagues conducted a study of the outcomes of a horticultural therapy program on people with long-term mental illnesses using a mixed-methods approach of quantitative and qualitative measures (2020). The study recruited 82 adults interested in horticulture and plants who were enrolled in daytime vocational programs. Participants were randomly assigned to continue in their vocational programs as a control (41) to those assigned to a horticultural therapy (HT) program as the treatment (41). The experimental design involved a pretreatment baseline assessment, immediate posttreatment assessment and a follow-up. The average age of participants was 50.3 years, and 55 percent were women. The average onset of illness was 25 years previous to the study. Participants in the HT group received eight 75-minute sessions of horticultural activities that included transplanting, vegetative propagation using cuttings and division, mindful eating of fruits, introduction to aromatic herbs, vegetable harvesting, and making small container plant arrangements, leaf rubbings and pressed flower cards. The HT treatment was administered to small groups of 8-10 participants.

Mental health was evaluated for indications of depression, anxiety and stress using the DASS21 self-report questionnaire. The Mental Well-Being Scale was used to assess overall psychological well-being. The EMAS questionnaire evaluated participants' sense of engagement, accomplishment and meaningfulness. Additionally, engagement and affect during the HT sessions and social exchange and support were examined.

The study results suggest that the HT program treatment group showed statistically significant improvements for engagement and mental well-being and a positive sense of meaningfulness and accomplishment relative to the comparison group. However, contrary to many previous studies, the HT treatment did not improve indications of depression, anxiety and stress in the present study. It remains unknown why there appeared to be no treatment effects for depression, anxiety and stress in this study.

The present study provides additional evidence that aligns with the writings of Benjamin Rush that gardening and agriculture can be beneficial for people suffering from mental illnesses.

Siu, A, Kam, M. & Mok, I. (2020). Horticultural therapy program for people with mental illness: A mixed-method evaluation. *International Journal of Environmental Research and Public Health* 17(3).

Book Review

## Propagated From the Ashes

Topping, K. (2020). Golden Brick Road Publishing House

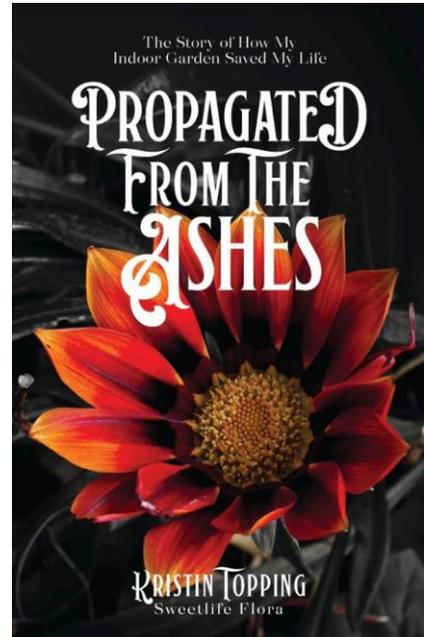
Reviewed by Mitchell Hewson, HTM, LT, RAHP

Photos by Golden Brick Publishing House

Kristin Topping has written a new resource and inspirational story of her journey following a multiple minor traumatic brain injury (mTBI) and how indoor gardening saved her life. A great title sets the tone for this manuscript providing an understanding of her recovery and self-care through mindful horticulture.

The information, presented in 14 chapters, provides a strong knowledge base and clinical understanding of head trauma and its symptomology. Reengaging, using nature as a treatment tool of her wellbeing and self-care, the book can function as a guide for others wanting to develop their own mindful horticulture and planner journal. The book covers topics like the post-concussion rehabilitation process, experiencing grief following the loss of abilities, navigating relationships recovery and finding a new normal through horticulture.

Kristin bridges the gap between negativity and despair to hope and healing, bringing new purpose and life for those who experience trauma and depression. Particularly relevant for horticultural therapists and others who use people-plant interactions as health strategies, Kristin's inspiring book promotes a holistic approach to brain injury recovery. As a twenty-two-year veteran of the Canadian Armed Forces as an engineer, academic and educator, the author has successfully transitioned to entrepreneur/owner of Sweetlife Flora, a rare and exotic plant shop.



## **Nova Scotia Horticulture for Health Network's Webinar Series**

A four-part webinar series will be offered throughout 2021; further details to follow.

### **Spring Into Therapeutic Plant Programming** (spring date)

Implementing therapeutic and recreational programming requires strong organizational and planning skills. When the focus of programming has a plant-based theme, understanding and planning the critical components are essential to effective services. Planning human and plant resources, including grant proposals and funding for programs, recruitment of participants and volunteers, and vertical programming - garden design, plant selection and therapeutic or recreational plant-based activity can be challenging. Strategic planning for implementing therapeutic plant programming will be covered in this session.

Presenters: Amy Davis, MS Agr. & Kate Sampson, BSc Therapeutic Recreation, CTRS

### **Using Plant and Nature-based Activities for Effective Therapeutic Interventions** (fall date)

Evidence-based health benefits of plant and nature-based therapeutic interventions will be presented based on theory from horticultural therapy practices, principles and standards of practice. Effective strategies for incorporating this type of intervention for health, wellness, relaxation, and therapeutic goal achievement in a variety of therapeutic recreation settings will be covered along with techniques appropriate for delivery to multiple populations. Adaptations for horticultural environments and tasks for individuals with various cognitive and physical impairments, or with specific health conditions will be presented linking health goals, hands-on therapeutic activities, and outcomes.

Presenter: Susan Morgan, MS, Horticulturist with Certificate in Horticultural Therapy

### **Therapeutic Programming: Gardening and Plant Activities with People Living with Dementia** (fall date)

Dementia continues to be a global health issue with increasing interest in strategies addressing the challenges faced by people living with dementia. Plant-based and nature-based experiential activity delivered by recreation and horticultural therapy professionals can be effective for people living with dementia, and for their extended community of service providers, care partners and families. Referencing evidence-based knowledge on benefits of connecting with nature, methods of delivering gardening, plant and nature-based activity, with specific applications with people living with dementia can provide foundational knowledge to health providers. This type of therapeutic programming can contribute to quality of life, positive interactions and increased physical activity, concurrently helping to change the narrative about living with dementia.

Presenter: Lesley Fleming, MA, Registered Horticultural Therapist

### **Borrowing from Laughter Therapy to Enhance Plant-based Therapeutic Recreation and Therapeutic Horticulture** (fall date)

Identifying the physiological and psychological benefits of laughter and humor, citing current research and theory, the session will identify applications of laughter therapy concepts and techniques using plant-based humor appropriate for laughter with all special populations, for use by recreation or horticultural therapists.

Presenter: Lesley Fleming, MA, Registered Horticultural Therapist

## Resources Spring 2021



Photo: CDC.unsplash

**Ecology Action Centre's List of Community Supported Agriculture (CSA) farms & markets in Nova Scotia**, meant to improve access to good food. <https://ecologyaction.ca/nsfoodelivery>

**Plants to Plates Activity Guide** (downloadable in French & English) provides food education/activities for teachers, volunteers, and programs from Community Food Centres Canada. <https://ecologyaction.ca/plantstoplastes>

**Food Plants of the World: Identification, Culinary Uses and Nutritional Value** reference book. <https://www.amazon.com/Food-Plants-World-Illustrated-Guide/dp/0881927430>

**Indigenous Foodways:** 18 articles published on *Civil Eats* daily on-line news source offering critical thought about American food systems issues. <https://civileats.com/category/food-and-policy/indigenous-foodways/>

### Nova Scotia Horticulture for Health Network

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Garlic, Upcycling Activities in the Garden

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