





Veterans Gardening Guide

Promoting Allergy-Friendly Planting

GARDENING TIPS GEARED FOR THE NOVICE TO EXPERIENCED GARDENER







PETER PRAKKE

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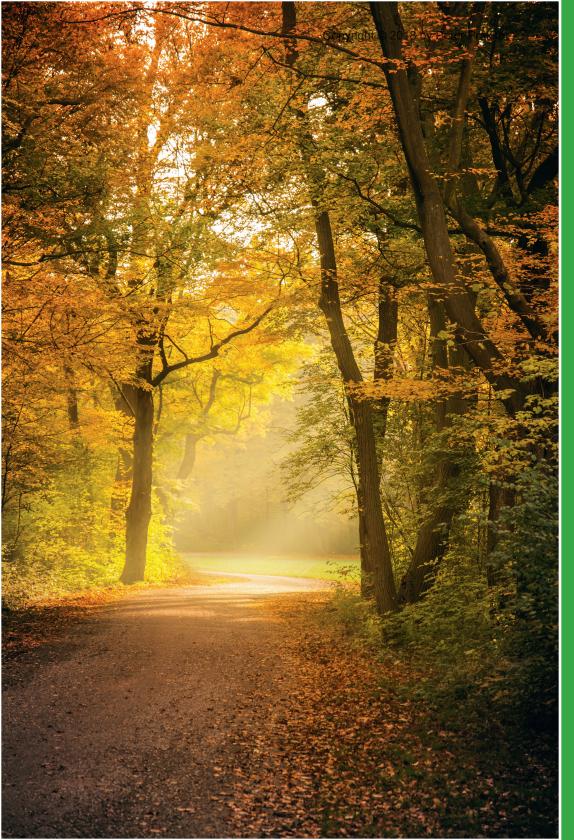
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PETER PRAKKE



I shall pass through this world but once. Any good, therefore, that I can do or any kindness that I can show to any human being, let me do it now. Let me not defer or neglect it, for I shall not pass this way again.

Stephen Grellet, Quaker missionary

1773 — 1855

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FOREWORD

Very few authors in the world of gardening books, if any, were in part inspired by memories of the Great Britain and Canadian Armies liberating their countries. Horticulturist Peter Prakke was born and educated in the village of Eibergen, in the eastern part of Holland, and subsequently under German occupation in World War II. During the battle to liberate the village, two British soldiers died, and their graves are in the village cemetery.

With the passing of time, Peter has never forgotten the sacrifice made by the soldiers and has created this book as a tribute to them and all veterans representing their country during peacekeeping, war and conflicts. Peter's commitment to honouring the brave men and women is also evident in him developing the Bravery Park[™] initiative.

This definitive guide to indoor and outdoor gardening enables the reader to create his or her safe and healthy island of beauty in whatever space that is available to them. It is a beautiful book full of his experience and knowledge of a lifetime in all aspects of horticulture.

Experienced gardeners, or budding gardeners new to the world of plants, will discover a new world in this book for those with allergies, asthma and Chronic Obstructive Pulmonary Disease (COPD). Yes, it is all about liberation. No one should be forgotten. The sacrifices made by the veterans are so that all, especially the most vulnerable, can enjoy the beautiful world around us.

I highly recommend this book with full confidence that everyone who uses the information will inspire others to do the same. I know that God says we must account for our deeds and for what we've done with the allotment he's given us. There you have it; get reading and get gardening.

Nigel Clarke Founder of Queux Plant Centre, Guernsey, UK

INTRODUCTION

The *Veterans Gardening Guide* was written to honour our brave and courageous veterans who are at home, in the hospital, in a revalidation centre or special veterans' care centre. These men and women have earned our respect for their sacrifice and should be taken care of in a manner they deserve.

Nature inspires and is a "healer" to all of us. Caring for a garden plot, container garden or a few houseplants can give us a peaceful moment from a stressful day. Why? Plants have a natural cycle that is comforting. Plants are stimulating because they change through growth and blossoming periods. Plants can alter the environment that surrounds us by cleaning the air.

I invite and encourage family, friends, and care facility staff to assist in the horticultural experience. I share my experiences to provide practical gardening information and benefits to work with indoor or outdoor plants.

The *Veterans Gardening Guide* promotes landscapes of allergy-friendly plantings to ease the discomfort of individuals with allergies, asthma and other respiratory challenges.

Special thanks to Janice Johnston, my collaborator and co-writer of this project, in the editing, researching, and writing of this guide. For years she has help me with many of my gardening articles and editorials. Janice shares in my love of gardening, and that makes her my special kindred spirit.

Without the encouragement of my wife, Catharina; son, Jan; daughter-in-law, Joyce; and daughter, Carina, I would be completely lost in undertaking this project. Their unwavering support has been a blessing as I navigate the exciting world of authorship.

My dear friend and colleague, Thomas Ogren, author of the book *The Allergy-Fighting Garden*, has supplied me with a tremendous amount of information about allergy-friendly gardening, and has encouraged me to continue spreading the message.

Thanks to my long-time friend J. Paul Lamarche for providing gardening information.

Thanks to Kelly Davy, Allan Dennis and Peter Wynnyczuk for their time to review this guide and provide valuable comments.

This project has been a labour of love, and I hope that you are inspired to get your hands dirty. One who gardens honours their ancestors.

Peter Prakke

ONE—

ALLERGIES AND ASTHMA INFORMATION

Plant Smart and Stay Healthy

A runny or stuffy nose, red eyes, sneezing or wheezing caused by allergies are a fact of life for millions of allergy sufferers. Individuals with asthma are also susceptible to breathing problems caused by plants. What we plant in the garden has a direct effect on our health and the health of those near us.

Male and female plants of separate-sexed species behave differently.

Female plants produce fruit and seeds, and male plants produce pollen.

Male plants don't produce pollen year-round.

This last statement may be true, but we are seeing the allergy season getting longer based on an extended growing season.

Many towns, cities and property owners don't want the fruit to dirty their sidewalks. They resort to planting pollen-producing male cultivars, such as maple or willow trees.

A pollen-producing male tree in your yard will easily expose you to ten times more pollen than a similar tree growing down the neighbourhood block. This can be compared to second-hand smoke.



It's possible to inhale a trace of smoke from a person smoking a block away from you, but it's hardly the same as someone smoking right next to you. It's the same with plants. If your garden is full of allergenic plants, then you will have a higher exposure. Remember, the greater the exposure to pollen, the greater the incidence of pollen-triggered allergy and asthma.

If we continue planting male clonal, native and non-native, pollen-producing shrubs and trees, the rates of allergies and asthma will continue to rise. The fact is that 8.3% of all Canadians are asthmatic. Of all school-aged children, 8% have asthma. Each year, emergency departments are seeing a stark increase in the number of children admitted during the pollen season. Pollen levels in the city and urban areas are high and increasing due to global warming and the interaction with air pollution. The perfect solution is to limit the number of male plantings and focus our attention on female plants that trap pollen, clean the air of particles and shed no pollen.

According to Thomas Ogren, horticulturist, pollen isn't always that easy to see, nor is it only bright yellow. It can be white, grey, green, brown, red and even purple.

Unfortunately, even if you diligently plant an "allergy-friendly" garden, many of the wind-borne pollens that might affect you can travel to your yard from other neighbouring gardens, nearby parks or even from afar. At best, you will learn from reading this gardening guide about which plants to avoid in your garden if you are susceptible to allergies or asthma. You will come to know the worst pollen offenders.

Peak pollen times will depend on the plant, the weather and your location.

I am frequently asked by amateur gardeners and gardening professionals if it's possible to plant for allergies and asthma. Yes, and it's quite easy. Let's take a look with ten tips to remember as we plan our gardens:

- 1. Avoid planting any male shrubs or trees. These are sold as fruitless or seedless varieties, but they are classified as males and produce large amounts of allergenic pollen.
- 2. Plant female shrubs and trees. Although female species may be messier than males, they produce no pollen, and trap or remove pollen and particulates from the air.
- 3. Plant disease-resistant varieties. Disease-resistant plants won't become infected as much, and the air around them will be healthier.
- 4. Use only shrubs and trees adapted to your climate zone. Often native plants are the healthiest choices, but native plants can also cause allergies.
- 5. Don't plant too many of the same varieties. Diversity is good. Use a wide selection of asthma- and allergy-friendly plants.
- 6. Attracting birds to your garden is a big plus because they eat many insects. Insect dander causes allergies, and birds consume an incredible number of aphids, scale, whiteflies and other pests.
- 7. Know the exact cultivar name of the shrub or tree before you purchase it. Plants that are clearly tagged with the correct cultivar and Latin scientific name will help you determine the allergen ranking.
- 8. Use pollen-free selections whenever possible. Double chrysanthemums usually have no pollen. Almost all of the erect tuberous begonias have female flowers, making them pollen-free.

- 9. If you must have some high-allergy potential plants in your garden, because "you like them so much," plant downwind and as far away from the house as possible.
- 10. If you have a tree or hedge that has high-allergy potential and you don't want to remove it, consider keeping it sheared so that it will produce fewer flowers. For example, the boxwood has allergenic flowers, but if given a yearly hard prune, it will rarely bloom.

Just a Thought...

Take time to smell the roses, as they say, but remember the beauty of the garden may also cause you to reach for a box of tissues.

Allergy Ranked Plants (OPALS)

OPALS° is an abbreviation of Ogren Plant Allergy Scale, founded by Thomas Ogren and developed based on the following criteria:

What do well-known plants that create allergies have in common?

What do plants that are well-known to NOT cause allergies have in common?

With these two questions, it was possible to build two opposing sets of medical and botanical-allergy information.

There are now well over 130 criteria used to develop OPALS rankings. 1 = low and 10 = high in allergens for plants.

Low-allergy rankings are considered to be 1 through 3 on the allergy scale. Mid-range rankings are 4 through 6, and high rankings are 7 through 10. Plants with rankings of 9 or 10 have an extremely high potential to cause allergic reactions.

OPALS Allergy Ranking	Explanation Note: Each individual ranking will have a different allergy reaction.
1 to 3	Very low potential to cause allergies. For example, the red sunset maple (<i>Acer rubrum</i>) is 1 on the OPALS ranking, meaning the least allergenic.
4 to 6	Moderate potential to cause allergies, exacerbated by overuse of the same plant throughout a garden. Most pine trees (<i>Pinus spp.</i>) are ranked at 4 to 5 as they will cause some allergies.
7 to 8	High potential to cause allergies; advised to plant as little as possible. The sycamore (<i>Platanus spp.</i>) has an OPALS ranking of 8 and can cause quite a bit of allergy problems.
9 to 10	Extremely high potential to cause allergies; should be replaced with less allergenic species. The worst on the OPALS ranking can often cause both hay fever and asthma. They may also trigger skin rashes. 'Autumn Spire,' a male cultivar of the red maples, has far more potential for allergy and is ranked at 9.

OPALS Allergy Index Scale excerpt taken from The Allergy-Fighting Garden by author Thomas Leo Ogren with guidelines updated July 2017.

Depending on the plant cultivar and/or species, the OPALS ranking may result in a given range. For example, sunflowers (Helianthus) are ranked 1 to 6.

According to Thomas Ogren, a plant need not necessarily be female to be allergy-free, and a good OPALS ranking is always an indication of low potential to cause allergy or asthma. If you can purchase a plant that has an actual OPALS ranking (1 to 10) tag on it, then that is something you can trust.

The United States Department of Agriculture and the American Lung Association use the scale to make improved landscaping decisions. Other organizations are sure to follow and endorse the cause.

Pollen dispersal rates have been measured since 1972 by Gilbert Raynor, a New York meteorologist. Many pollen grains travel a far distance, but research often shows that 99% of a tree's pollen is dispersed and sticks within 15 metres (50 feet) of the tree. This means the closer one is to the pollinating shrub or tree, the greater the allergy exposure.

Just a Thought...

At the May 2017 Chelsea Flower Show, the City of Birmingham (UK) won the gold medal for the best display of allergy-friendly gardens. The prestigious Royal Horticultural Society was quite interested in the concept of low-allergen gardening. The work of Tom Ogren and Nigel Clarke was acknowledged for promoting OPALS and allergy-friendly planting.

Plants with Potential Risk and Allergy Ranking

The following plants can be found in our business institutions, gardens, homes and parks, and are available for sale in local garden centres/nurseries. They can cause skin irritation and eye sensitivity or be poisonous if ingested. The allergy ranking is based on OPALS for allergy/asthma sufferers.

Common Name (Cultivar)	Botanical/Scientific Name	Skin	Eye	Poisonous If Ingested	OPALS Ranking
Aloe	Aloe vera			Χ	1
Amaryllis	Amaryllidinae			Χ	3
American elder	Sambucus canadensis			Χ	4
Angel wings	Caladium bicolor			Х	4
Angel's trumpet	Brugmansia x candida			Х	2 – 4, varies
Arrowhead vine	Syngonium podophyllum	X	Х	Χ	2
Autumn crocus	Colchicum autumnale			Х	3
Belladonna lily	Amaryllis belladonna			Х	2
Black locust, tree	Robinia pseudoacacia			Х	5
Calla lily	Zantedeschia			Х	4
Castor bean plant	Ricinus communis			Х	10

Common Name (Cultivar)	Botanical/Scientific Name	Skin	Eye	Poisonous If Ingested	OPALS Ranking
Chenille plant	Acalypha hispida	Χ	Х		m = 7, f = 1
Chinese evergreen	Aglaonema araceae	Χ	Х	Х	5
Christmas rose	Helleborus niger	Χ		Х	4
Chrysanthemum	Chrysanthemum	Х			4 – doubles, 6 – singles
Comfrey	Symphytum spp.	Χ			3
Common rue (herb)	Ruta	Χ			4
Coral berry	Symphoricarpos orbiculatus			X	3
Daffodil	Narcissus	Χ		Χ	4
Devil's ivy	Epipremnum aureum	Χ	Χ	Χ	2
Dumb cane	Dieffenbachia	Χ	Χ	Χ	m = 7, f = 1
English laurel	Prunus laurocerasus			Χ	6
False hellebore	Veratrum viride			Χ	8
Flamingo flower	Anthurium scherzeranum	X	X	X	2
Flowering tobacco	Nicotiana			Χ	3
Four o'clock flower	Mirabilis jalapa	Χ		Χ	3
Foxglove	Digitalis purpurea			Χ	2
Glory lily	Gloriosa superba			Χ	3
Hyacinth	Hyacinthus orientalis	Χ			3
Japanese wisteria	Wisteria floribunda			Χ	4

Common Name (Cultivar)	Botanical/Scientific Name	Skin	Eye	Poisonous If Ingested	OPALS Ranking
Leyland cypress	Cupressocyparis leylandii	Х			8
Lily of the valley	Convallaria majalis			Χ	4
Lungwort	Pulmonaria spp.	Χ			2
Lupine	Lupinus perennis			Χ	3
Monkshood	Aconitum napellus	Χ		Χ	4
Morning glory	lpomoea purpurea			Χ	4
Mountain laurel	Kalmia latifolia			Χ	8
Ornamental pepper	Capsium annum	Χ	Х	Х	1
Passion flower	Passiflora caerulea			Х	3
Peace lily	Spathiphyllum spp.	Χ	Χ	Х	2
Peruvian lily	Alstroemeria	Χ			4
Poison ivy	Toxicodendron radican	Χ		X	8 – 10, varies
Primula	Primula obconica	Χ			3 – 6, varies
Privet	Ligustrum			Х	9
Solomon's seal	Polygonatum biflorum			Χ	2
Split-leaf philodendron	Monstera deliciosa	Χ	Х	Х	4
Spurge	Euphorbia spp.	X	X	X	m = 10, f = 1
St. John's wort	Hypericum perforatum			Х	5
Star of Bethlehem	Ornithogalum arabicum	Χ		Χ	3

Common Name (Cultivar)	Botanical/Scientific Name	Skin	Eye	Poisonous If Ingested	OPALS Ranking
Tall larkspur	Delphinium exaltatum			Χ	3
Taro	Colocasia esculenta	Χ	Χ	Χ	2
Thornapple	Datura stramonium	Χ		Χ	2
Tulip	Tulipa	X			1 – doubles, 3 – singles
Weeping fig	Ficus benjamina	X			2 – 3, varies
Wintergreen	Gaultheria			Х	m = 5, f = 1
Yew	Taxus			X	m = 10, f = 1

Legend:

m = male; f = female plants

Doubles = double-flowering varieties; Singles = single-flowering varieties

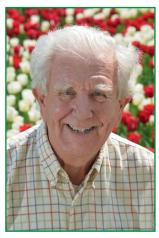
The OPALS ranking: 1 represents a female, allergenic-pollen-free plant (an allergy-friendly plant); a rating of 10 represents a predominantly male, allergenic, airborne pollen-intensive plant. Avoid high allergen plants.

ABOUT THE AUTHOR

Peter Prakke was born and educated in Eibergen (Gelderland), in the Netherlands. He graduated from agricultural college and since then has worked in agriculture, husbandry and horticulture in the Netherlands, England, Kuwait and Canada. Peter was the first manager of the State Experimental Farm of Kuwait in 1961. He has been a technical consultant on the Time/Life publication of the Lawn & Garden and turfgrass consultant at Queen's University, Kingston, Ontario.

Peter initiated the Plant a Tree — Create a Park© in Smiths Falls, Ontario, where he and his wife raised their two children. Most recently he created the Bravery Park $^{\text{TM}}$ to honour our veterans in allergy-friendly park settings.

A past recipient of Landscape Ontario's Garden Communicator Award, Peter organized horticultural therapy sessions with 6 – 10-year-old cancer patients at McMaster Children's Hospital in Hamilton, Ontario.



Author Photo: ©Larry Arnal

He works tirelessly to promote allergy-friendly schoolyards and writes for publications on the many gardening topics of importance to him. The *Veterans Gardening Guide* is his first book and is comprised of the many gardening articles he has written through the years.

You can contact Peter at one of the following websites that he is involved with: www.healthyschoolyards.org; www.safegardening.org; and www.veteransgardeningguide.com.

The information in the *Veterans Gardening Guide* is presented by the author based on his years of horticultural knowledge and experiences is not to be considered all-encompassing and is open to interpretation by the reader. The recommendations in the guide will not cure pollen-allergies, asthma or COPD but can greatly reduce many of the triggers and symptoms to make drug therapies more effective.