



Deer resistant bulbs

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Sarah Rautio

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MSUE Consumer Horticulture Educator

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Program Name: Smart Gardening - Deer Resistant Bulbs
and Landscapes

Survey Name: Extension Demographic Data Collection form
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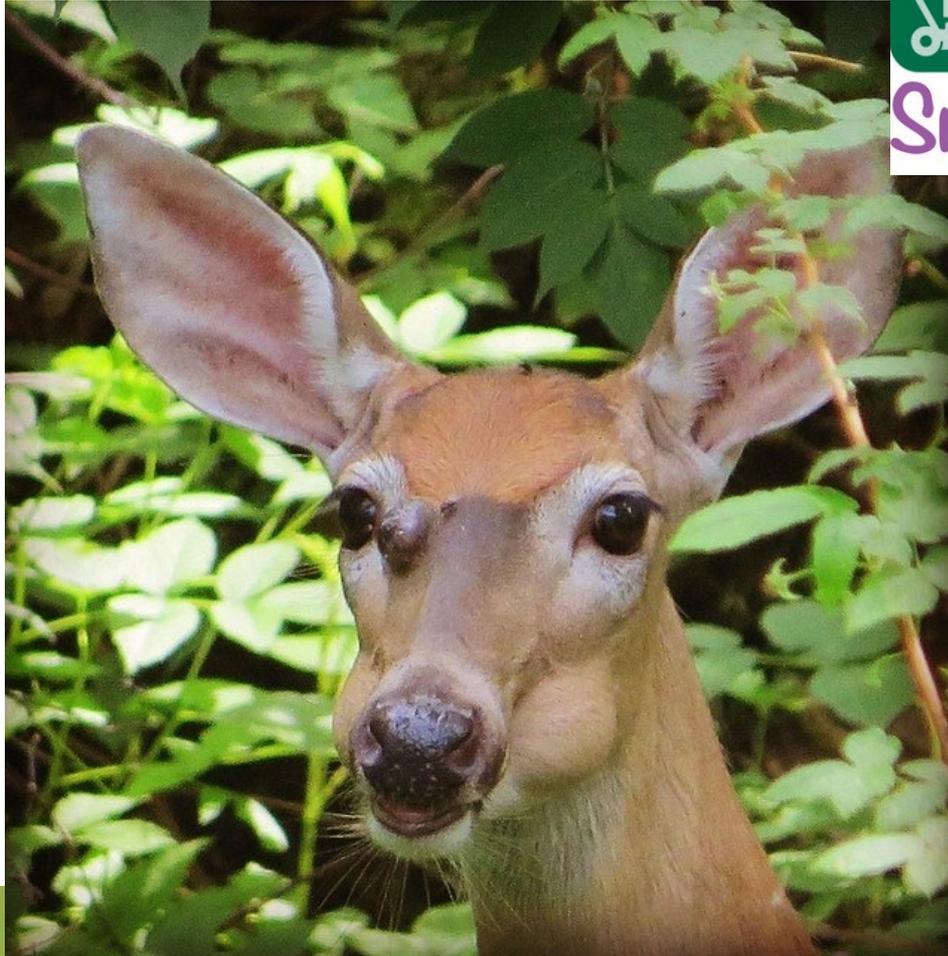


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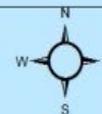


Smart Gardening





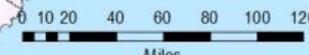
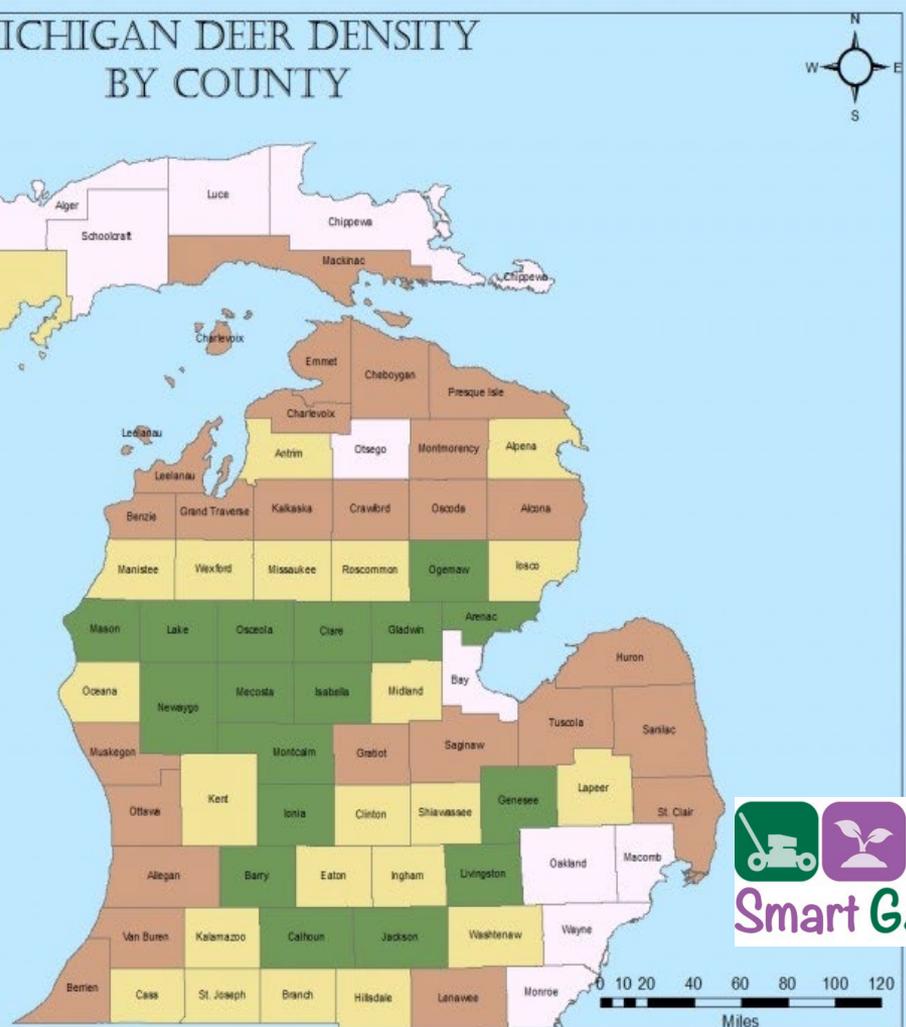
MICHIGAN DEER DENSITY BY COUNTY

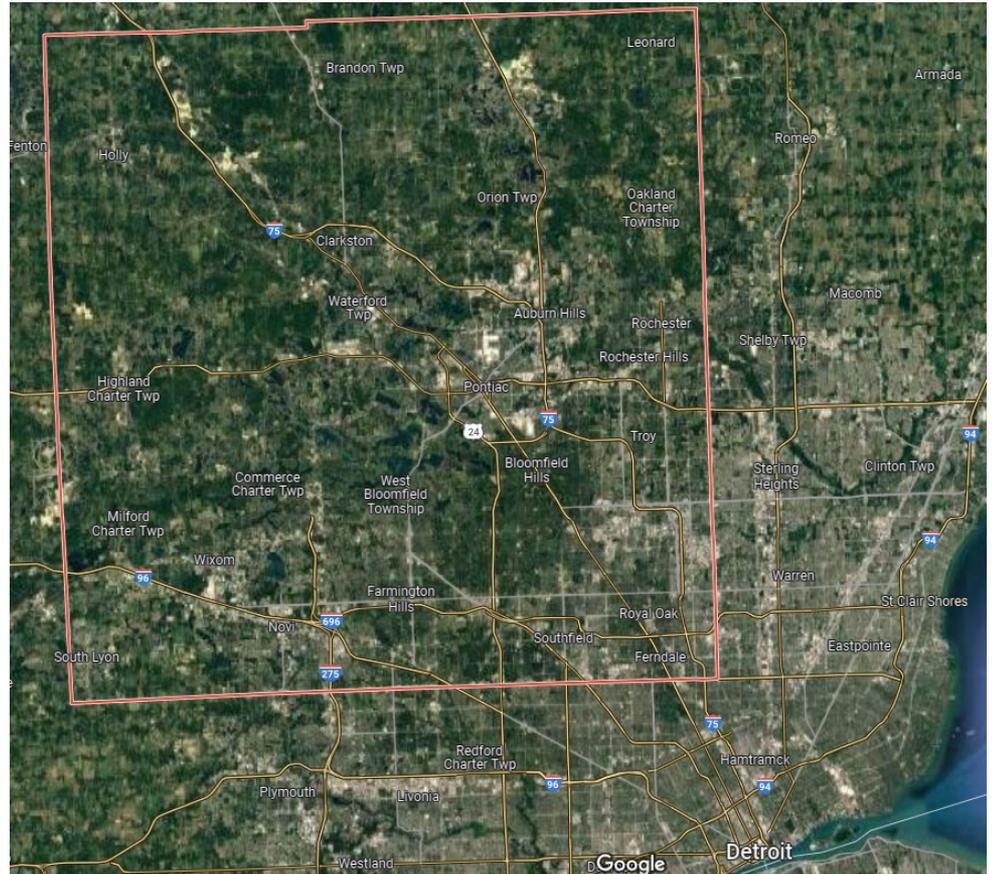
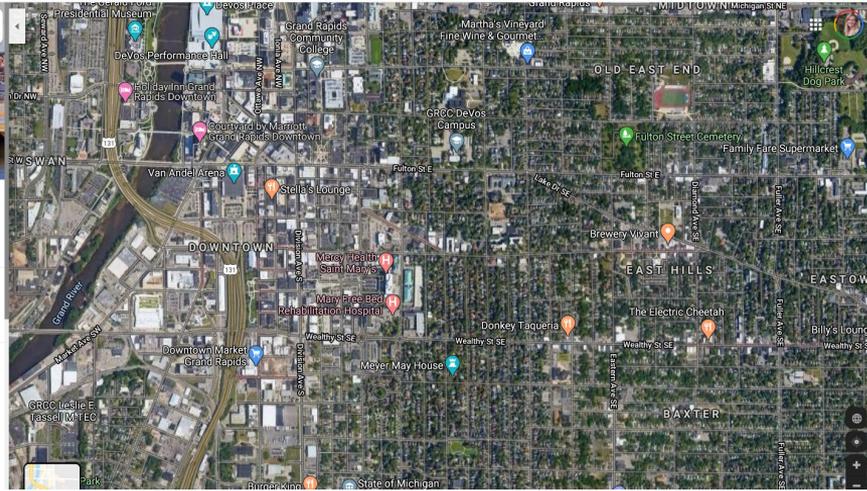


DEER DENSITY
Michigan Counties
Deer per square mile



PRODUCED BY JENNIFER SMITH
DATA SOURCE: ESRI AND
QUALITY DEER MANAGEMENT ASSOCIATION
DECEMBER 13, 2010





Steps to take when gardening with any pest:

- Understand the severity of the problem
- Understand your tolerance
- Understand the enemy (or acquaintance)
- Seek permanent change for long term
- Apply temporary changes for the short term



Whose Side Are You On? How You Feel About the Koi-Devouring Otter Saga Could Reveal Your True Self



[Time Magazine;
Nov 28, 2018;
https://time.com/546
5640/otter-koi/](https://time.com/5465640/otter-koi/)





Photos: Rebecca Finneran; Pixabay



Steps to take when gardening with varmints:

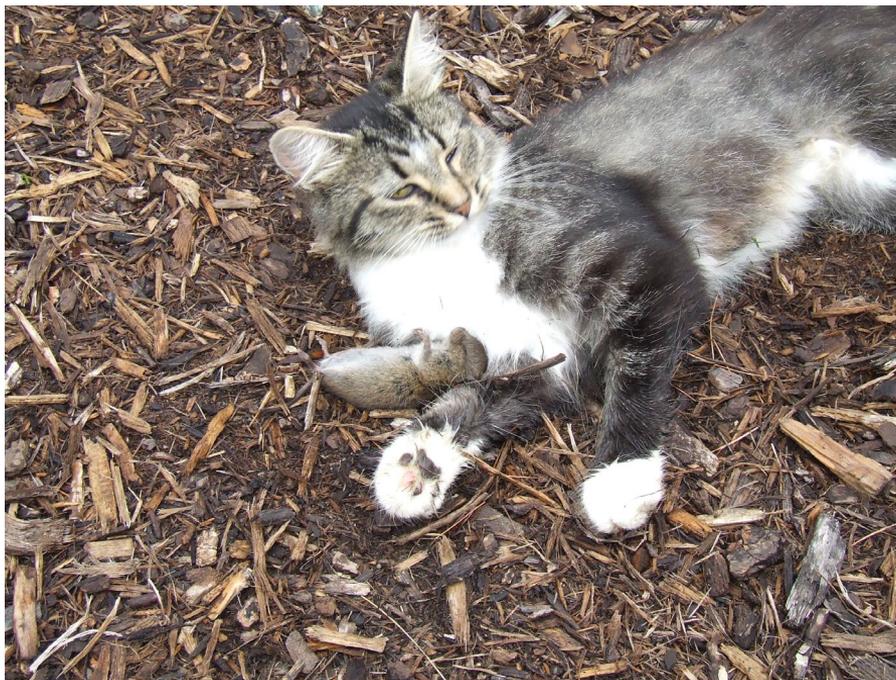
- Understand the severity of the problem

Moderate Offenders





Voles and moles.....



Steps to take when gardening with varmints:

- Understand the severity of the problem

The Bad Boys









Non-shearing deer vs shearing cow:

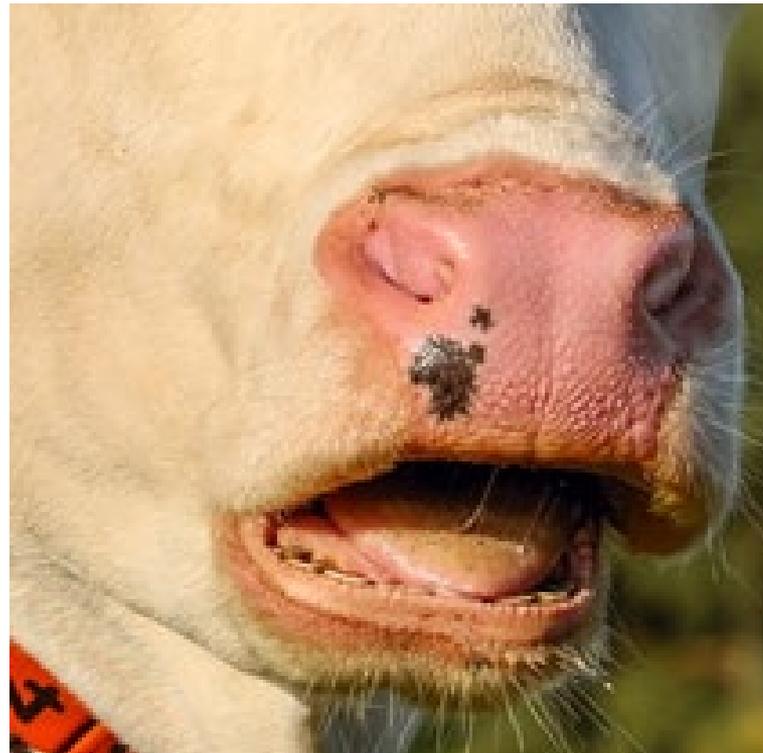
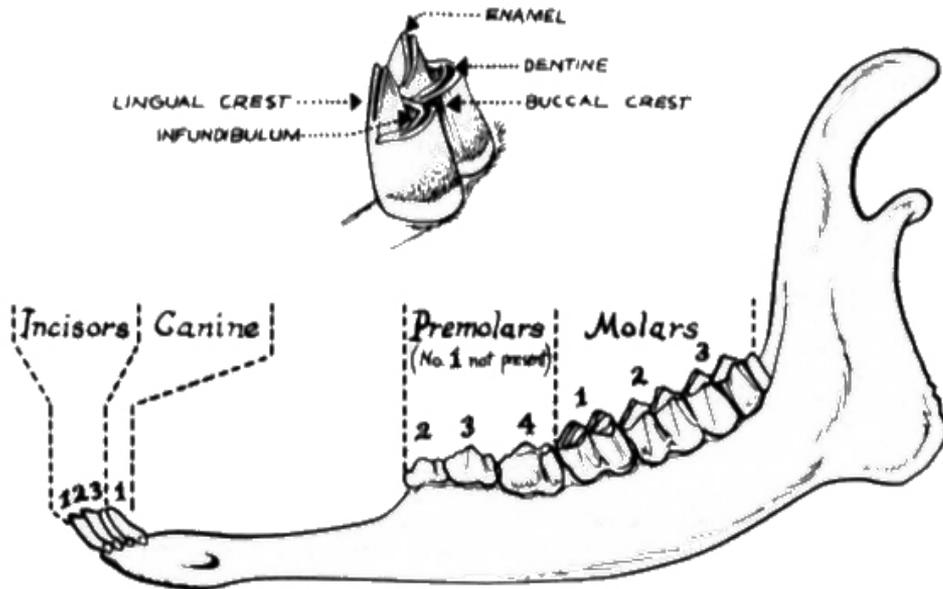


Photo: MDNR (left); Pixabay (right)



Deer Anatomy 101

- Deer never developed into full grazers (lack the teeth to “shear” grass)
- They pull grass out rather than shear it (cows shear).
- They pull out or bite off pieces of plants and trees.

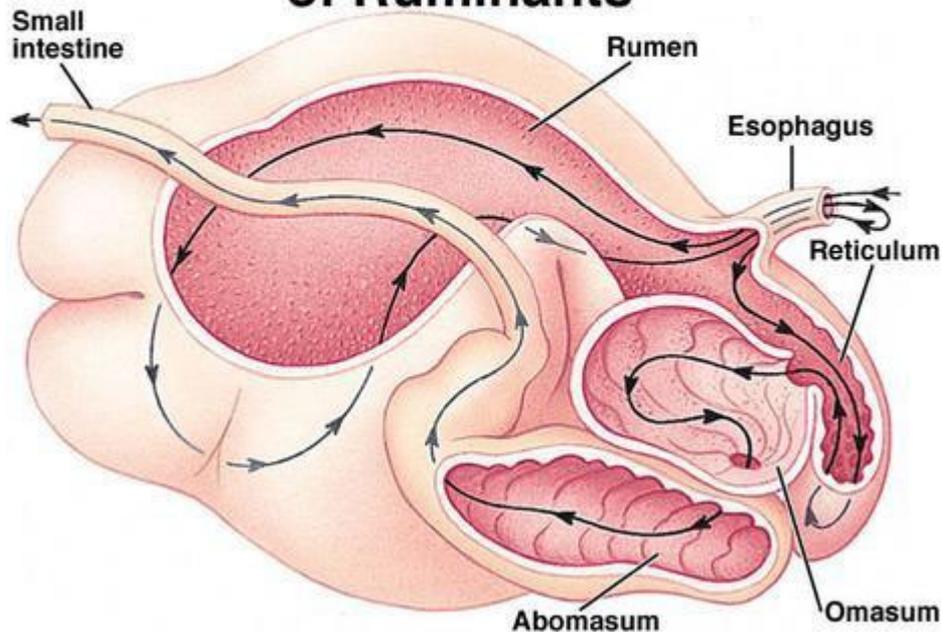




Cow Similarity

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Four-Chambered Stomach of Ruminants





Smart gardening with deer: Buffet versus buffer garden designs

Sarah Rautio, [Michigan State University Extension](#) - May 20, 2020

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Follow these planting techniques and plant suggestions to limit deer damage and better share space with wildlife.



Left, a buffet garden design with few plants in a small bed surrounded by open area versus, right, a buffer design with many kinds of deer-resistant plants planted over a large area. Photos by Sarah Rautio, MSU Extension.





Swamping the Predator



Smart Gardening



Key Characteristics of Deer “Resistant” Plants

- **Smelly**
- Fuzzy & Leathery
- Grass-like
- Toxic



Ornamental alliums



Chive and garlic borders







Flowers that Stink

- Yarrow
- Zinnia
- Tansy
- Marigold
- Monarda (bee balm)
- Artemesia
- Mint family



Artemisia garden in Los Alamos. A wave of artemisia surrounds patches of Russian sage and yellow yarrow. © 2008 Bob Walker





Lavender cotton – stinky







Fuzzy or Leathery

- Black-eyed Susans, Coneflowers and Daisies
- Gallardia (Blanket Flower)
- Foxglove
- Poppies
- Artemesias and Dusty Millers
- Rose Champion, Lamb's Ear
- Irises, aloes, and agaves
- Peonies





Photo: S.
Rautio



LEATHERY LEAVES: Bergenia, sedum and peonies





Fuzzy



Key Characteristics of Deer “Resistant” Plants

- Smelly
- Fuzzy & Leathery
- Grass-like
- Toxic



Ornamental Grasses



Key Characteristics of Deer “Resistant” Plants

- Smelly
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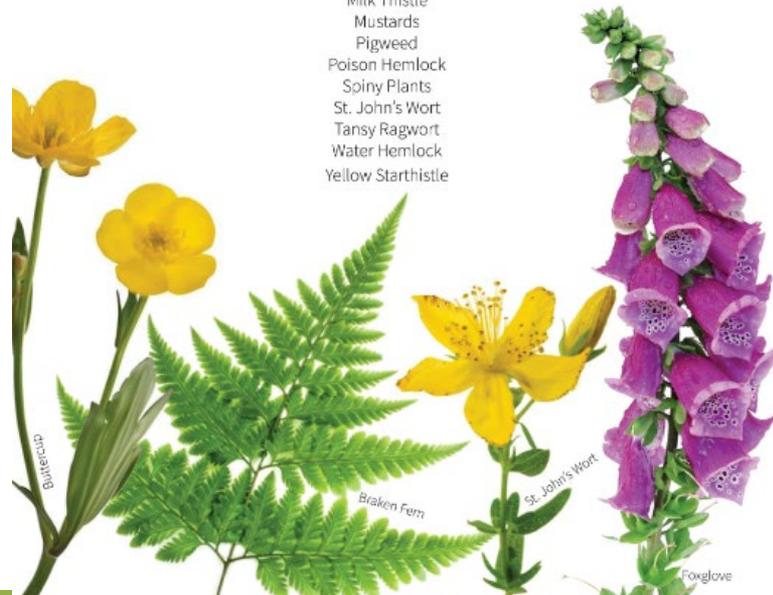




Photo: S. Rautio

Protect Your Ruminants: Toxic Plants of the North West

- Brackenfern
- Cheatgrass
- Creeping Buttercup
- Common Groundsel
- Death Camas
- Foxglove
- Houndstongue
- Kochia
- Leafy Spurge
- Lupines
- Milk Thistle
- Mustards
- Pigweed
- Poison Hemlock
- Spiny Plants
- St. John's Wort
- Tansy Ragwort
- Water Hemlock
- Yellow Starthistle





Smart gardening with deer: Deer-resistant bulbs to plant in fall

[Sarah Rautio, Michigan State University Extension](#) - September 30, 2020



October is the ideal time to plant over-wintering, deer-resistant bulbs in Michigan.



Common types of geophytes and the differences between them

	True bulb	Corm	Tuber	Rhizome
Structure	Modified underground stem with internal buds surrounded by modified leaves (scales)	Modified underground stem with external buds	Modified underground stem usually with buds formed on surface (eyes)	Modified underground stem that grows horizontally (sometimes shallow) with external buds









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Pollinator Lawns



Image source: Flickr/Hidoyuki KAMON CC BY-SA 2.0

How can you make your lawn more supportive for pollinators?

[Watch this video of current lawn trends!](#)





https://youtu.be/JnCJME_ssNU

Snowdrops are one of the earliest bulbs to bloom, providing nectar and pollen for honey bees at a time of year when those resources are scarce, as seen in the video above.



In order of early to late spring bloom time:

- **Snow Drops (*Galanthus* spp.)**
- **Crocus (*Crocus* spp.)**
- **Glory-of-the-Snow (*Chionodoxa* spp.)**
- **Squill (*Scilla* spp.)**
- **Grape Hyacinth (*Muscari* spp.)**
- **Windflower (*Anemone* spp.)**
- **Star Flower (*Ipheion* spp.)**









The American Daffodil Society
The United States Center for Daffodil Information

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Daffodil FAQs

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2022 Fall Forum & Fall Board Meeting

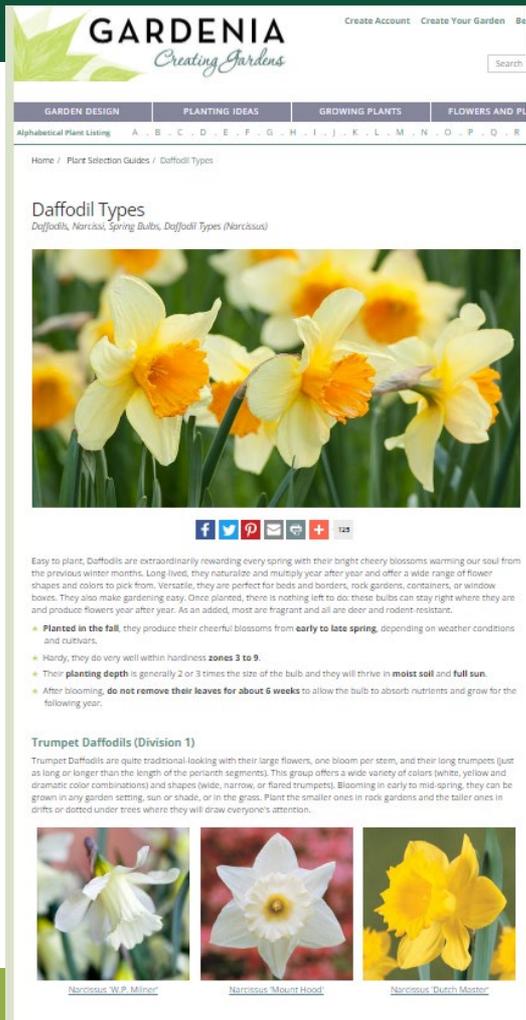


Join us in Newport, Rhode Island from November 4 – 6, 2022 for our Fall Forum & Board Meeting! **Refer to the 2022 Fall Forum & Fall Board Meeting page for details.**

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Daffodil Types

Daffodils, Narcissus, Spring Bulbs, Daffodil Types (Narcissus)



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Easy to plant, Daffodils are extraordinarily rewarding every spring with their bright cheery blossoms warming our soul from the previous winter months. Long lived, they naturalize and multiply year after year and offer a wide range of flower shapes and colors to pick from. Versatile, they are perfect for beds and borders, rock gardens, containers, or window boxes. They also make gardening easy. Once planted, there is nothing left to do: these bulbs can stay right where they are and produce flowers year after year. As an added, most are fragrant and all are deer and rodent resistant.

- **Planted in the fall**, they produce their cheerful blossoms from **early to late spring**, depending on weather conditions and outdoors.
- Hardy, they do very well within hardiness **zones 3 to 9**.
- Their **planting depth** is generally 2 or 3 times the size of the bulb and they will thrive in **moist soil** and **full sun**.
- After blooming, **do not remove their leaves for about 6 weeks** to allow the bulb to absorb nutrients and grow for the following year.

Trumpet Daffodils (Division 1)

Trumpet Daffodils are quite traditional looking with their large flowers, one bloom per stem, and their long trumpets (just as long or longer than the length of the perianth segments). This group offers a wide variety of colors (white, yellow and dramatic color combinations) and shapes (wide, narrow, or flared trumpets). Blooming in early to mid-spring, they can be grown in any garden setting, sun or shade, or in the grass. Plant the smaller ones in rock gardens and the taller ones in drifts or dotted under trees where they will draw everyone's attention.



[Narcissus 'W.P. Milner'](#) | [Narcissus 'Mount Hood'](#) | [Narcissus 'Dutch Master'](#)







Not to be confused with
Virginia bluebells – but
also somewhat deer
resistant.





The taller Fritillaria have toxic parts.















Leucojum in moist partly
shady areas.





Colchicum spp. blooms emerge about the same time apples mature, with one key difference: deer eat the apples.

Sometimes called Autumn Crocus, it is in the lily family, not the crocus family. Toxic due to colchicine. (Spring crocus is not toxic but can cause a bit of gut pain.)



Smart gardening with deer: Deer-resistant summer bulbs, rhizomes, tubers and corms

[Sarah Rautio, Michigan State University Extension](#) - May 21, 2020































A familiar (*Grandiflora* hybrid) and less-familiar (*Gladiolus callianthus*) variety of *Gladiolus*.



Agapanthus grown in a container in front of a greenhouse. Photo by Sarah Rautio, MSU Extension.





Dierama spp.



HEALTHY HERBACEAE
"Spectra"
"Spectra Blue"

HEALTHY HERBACEAE
"Spectra"
"Spectra Blue"

HEALTHY HERBACEAE
"Spectra"
"Spectra Blue"













Skunk cabbage is in the same family as caladium – and also has the toxin calcium oxalate.











Bloom on a rhubarb – this plant also has calcium oxalate – yet is in another family.





More deer-resistant geophytes:

- Blazing Star (*Liatris punctate* or the Michigan native *Liatris spicata*) – Not quite as deer resistant as other bulbs, this corm still has some resistance, especially if interplanted with other deer resistant plants that complement it, like Echinacea.
- Bleeding heart (*Dicentra*) – A common perennial that is sold in both dormant form (in bags) and active form (in pots). All species and cultivars of bleeding heart have very high deer resistance.
- Canna lilies (*Canna*) – Their leathery leaves and often large size make them deer resistant. Their rhizomes need to be lifted in most areas of Michigan in the fall—allow the foliage to die back before cutting the tops off for storage.
- *Crocsmia/Montbretia* – These corms produce plants with orange/red flowers on tall stems and grass-like foliage; ‘Luicifer’ is hardy to USDA Zone 5, but most of these are only suitable down to Zone 6.



- Cranesbill (*Geranium tuberosum*) – A tuberous rooted perennial in the geranium family, these wild versions of geraniums are deer resistant due to their fuzzy stems and leaves.
- Fumewort (*Corydalis solida*) – Often sold in pots in early spring, this is a woodland plant.
- Winter aconite (*Eranthis hyemalis*) – A less familiar bulb that belongs to a more familiar plant family, the Ranunculaceae (buttercups). It is sometimes sold as a potted plant, producing yellow flowers on a low-growing plant.
- Wood sorrel (*Oxalis adenophylla*) – Another unfamiliar plant from the more familiar genus *Oxalis* (shamrocks). It is mostly sold as a plant in containers rather than in its dormant corm form.









Planting Garden









Dierama sp. behind a bench at Altamont Gardens - Ireland









Program Name: Smart Gardening - Deer Resistant Bulbs
and Landscapes

Survey Name: Consumer horticulture program evaluation

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