GROWING CLEMATIS

Have you ever passed by someone's house or yard and thought to yourself...holy smokes what an incredibly beautiful climbing vine? There's a good chance it's a Clematis. They can produce an astounding number of flowers, sometimes even twice a year. There is a wide array of flower colours, shapes and different sizes. If you're interested in diving into the Clematis world, read on, there's lots of information to help you get the best out of these plants, including when things go awry.

About Clematis

Clematis is within the *Ranunculaceae* family. This family also includes aconites, anemones, buttercups, peonies, and hellebores. There are approximately 300 species, and significantly more hybrids within those. The multitudes of choice regarding shape, color, characteristics, and flowering varieties can be somewhat overwhelming. Clematis can be a woody, deciduous, evergreen, or herbaceous plant. There is a wide array available: ground cover, mound-forming (up to 2'), bush (2-6'), pillar (6-10'), or vines (10' and over). Flowering times range from spring/late spring, late spring/summer to summer/autumn, some even flower more than once in a year.

Generally, you should expect it to creep, as most common clematis are vines. Clematis will grow up a trellis, across the ground, and along other plants, provided the roots are not in direct competition with other plants. The tendrils will wrap around anything they encounter, regardless of what is there to support them. When support is not provided, they will wrap around themselves. Supports (trellises, arbours, cages, etc.) are best set during initial planting. Unless you prune low, placing support structures later risks harming the plant as the stems and tendrils are very susceptible to breaking.

If you are looking for a native species in your garden, you'll need to really watch what is written on the plant tags. Most clematis vines available at garden nurseries are non-native and some are aggressive growers. The more exotic and native varieties can be hard to find, so online ordering may be something to think about.

Interesting Facts:

- Clematis terniflora (Sweet Autumn Clematis) is classed as an invasive species (think very carefully about purchasing this one)
- Clematis have a high wildlife value. The flowers provide nectar and pollen for butterflies, bees, and hummingbirds. Birds will use them for nesting, and last year's spent seed heads provide a nest lining. Bees will use them to find safety during a storm

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KLEE-mah-tis, cle-MAT-us, CLEM-uh-tus and cle-MATE-is? William T. Stearn, in his book Botanical Latin, states "Botanical Latin is essentially a written language, but the scientific names of plants often occur in speech. How they are pronounced really matters little provided they sound pleasant and are understood by all." We all know what people are talking about regardless of how they say it

Growing Requirements - In A Nutshell

- Available varieties range between Zones 4-9
- ▶ Plant deeply to keep the roots cool and cover with a thick layer of mulch
- To keep flowers at their brightest, they are best shaded from hot afternoon sun where possible. Too much shade may inhibit flowering
- Well drained fertile soil, don't let them dry out or stay soggy
- 6+hours sunlight/day
- Best time to plant: Spring, once any chance of frost has passed

How To Plant: In the Ground Or In A Container

Before planting, it's recommended to root-wash clematis. This involves soaking the root ball in a container of warm water, and gently coaxing the original growing medium away, which often becomes too dry in the garden. Root-washing requires care, but it gives the plant a better start and allows you to check for the newly arrived Pheretimoid Earthworms (the invasive Jumping Worms).

Plant deeply, with some of the crown (where the roots meet the stem) about six inches below soil level. The stem will grow additional roots underground when planted this way. Deep planting will provide some protection against wilting diseases. This also helps to keep the roots cooler when topped with a 6-inch layer of mulch around the stems.

If you wish to plant your clematis in a container, you can absolutely do that. It can be done successfully with some planning. Follow the above steps for planting but keep these extra few things in mind.

- Choose a variety that is suitable for one zone lower than yours, as container growing exposes it to harsher conditions (so if you're in Zone 6, buy one rated for Zone 5)
- Choose a large pot (the larger, the better), fill it with a combination of compost and organic container mix suitable for flowering plants.

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 Over winter Clematis the same way you would over winter semi-hardy potted trees

Identifying Your Clematis

Realistically, it is more important to know which of the three pruning groups your clematis belongs to than which cultivar you have. Waiting a full flowering cycle to see how it behaves over the year will answer these questions (embrace your gardener patience!) and show you which pruning group it belongs to. For example: if your clematis blooms twice a year it's considered a repeat bloomer and it will belong to Group 2 for pruning. Look a bit farther down for the Pruning information.

According to the website https://empressofdirt.net, the characteristics you see below are the most useful for identifying the cultivar you have in your garden. Another useful resource is www.clematisontheweb.org. This U.K. site is suggested by Clematis International and may offer a more exacting match if you are up for the challenge. Note that it requires a fair amount of information and has a potentially long search time.

<u>Leaves:</u> Clematis leaves grow in pairs along the stem. Leaf shapes can vary by variety.

Buds: Does it produce these in spring, late summer/early fall?

Flowers: Does it produce flowers once a year, or twice? How big are the flowers? What

colour are the centres (there are many colour and shape differences in the

stamen, stigma, and ovary)

Seed Heads: What do they look like?

Stems: If you look at a stem that has a bud or flower on it, is that stem green and

new or is it brown and woody?

Height: How tall or long do the stems get?

Habit: Is it a mounding ground cover? bushy? a creeper?

Pruning

Clematis have three pruning groups, known as Groups 1, 2 and 3. Pruning at the wrong time can set back flowering for a year, so pay heed to which group yours falls into. Apart from Group 1, you aren't going to kill it if you make a mistake, these plants are tough once established.

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Regardless of the pruning group, all clematis can and should be pruned to remove dead, damaged, or diseased branches at any time of the year.

Group 1:

These bloom in spring on stems grown the year before and they tend to be quite vigorous growers. They don't like pruning at all, so most of the time there is no need to prune. If you must, however, prune seed heads off immediately after they flower in the spring. A little tip pruning is more than enough. Less really is more in this group.

Note: The exception to this rule is rejuvenation pruning. It's meant for a messy neglected plant or one that has really grown out of its space. You can prune one-third of the plant back in the spring and repeat for the next two or three years. You won't get flowers on the new growth in the next year. Be very careful how much you prune away; severe pruning is the one thing that has the potential to kill Group 1 Clematis.

Group 2:

Depending on the cultivar, these is where the large-flowered cultivars and repeat bloomers are found. Blooming occurs late May through July. They are slightly more finicky to prune than Groups 1 and 3, but they are worth the effort.

The first set of flowers comes from old wood in May/June, as the buds were produced on the previous year's wood. Prune away no more than 30% of the old wood to various lengths (always above a set of healthy new buds) in March/April when the buds are easier to see. Pruning to various lengths gives you a new growth of stems and buds that will provide a more balanced flower show for the second flowering that year, as well as keeping a healthy structure for the plant.

Group 3:

These bloom in summer on new wood after July. Prune entire plant to 12-24", just above a new set of buds in April. This is the easiest group of Clematis to prune.

What Is Damaging / Killing Your Clematis?

There are insects, fungal, and bacterial diseases that can harm your clematis. Insects may happily munch away on the foliage (mind, so do the beneficial caterpillars, so be careful what you squash!). Fungal and bacterial diseases can strike suddenly and kill the plant or reduce it to the soil until next year. Viruses can mean the best course of action is to get rid of the plant.

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There are products available to address some of these issues. Speak to knowledgeable staff at your nursery if you choose that route. But keep in mind, you may kill all the beneficial insects that come to your clematis as well (remember the high wildlife value they have). Take a moment to truly evaluate the cost/need of using this type of product.

Below are some pictures to help you recognize some of the more common insects that you may find on your plant(s).

INSECTS:

Green Peach Aphids



Oyster Shell Hard Scale



Omnivorous Looper



Brown Soft Scale



Thrips



Greenhouse Whiteflies



Japanese Beetles



FUNGAL AND BACTERIAL DISEASES:

On the next page, Penn State University provides this information table in an article on Clematis Diseases that you may find helpful (https://extension.psu.edu/clematis-diseases). I have added what type of disease it is (fungal, bacterial, or viral).

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NAME and DISEASE	WHAT IT LOOKS LIKE	<u>MANAGEMENT</u>
Clematis Wilt Fungal	A fast-acting fungal disease. One day the plant looks fine and the next day it's blackened and withered as the stems collapse.	Ensure good air circulation around clematis stems. Remove infected leaves as they are detected. Irrigate plants in a manner that keeps water off the foliage. Apply a fungicide to protect plants.
Leaf Spot Fungal or Bacterial	Appears as large tan or black spots on the leaves.	Same as Clematis Wilt.
Powdery Mildew Fungal	Shows up as white fungal growth on the leaves, which wither and die.	Application of sulfate, potassium bicarbonate or sulfur as soon as mildew is noticed.
Rusts Fungal	Slightly swollen areas on the vine have eruptions of yellowish spores.	Ensure good air circulation around clematis stems. Remove infected leaves as they are detected. Irrigate plants in a manner that keeps water off the foliage.
Root Rots Fungal	Wilting and dying plants have a rot at or slightly below the soil line.	Ensure good air circulation around clematis stems. Remove infected leaves as they are detected. Irrigate plants in a manner that keeps water off the foliage.
Tomato Ringspot Viral	Yellow mottling and spotting occur on the leaves.	This virus is moved from infected clematis and some weeds by nematodes. If plants are vegetatively propagated from infected stock plants, new plants will have the virus. Remove infected plants.
Botrytis Grey Mould Fungal	Buds and flowers to develop abnormally and turn brown.	Provide good air circulation, do not leave large stubs if taking cuttings. A fungicide may be required. Remove dead or dying tissue from the plants and from the soil surface.
Slime Flux Bacterial	A soil-born bacteria occurring in damaged stems. It leads to wilting, dieback and a foul-smelling liquid leaking from the damaged stem.	Take care to protect plant from wind and frost damage. Prune out diseased stems and hope for new growth. If plant dies, you can remove completely and replant with fresh soil.

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What To Check If Your Clematis Doesn't Bloom

Your clematis looks healthy with lots of new leaves and stems. That's good. But for some reason it doesn't flower. That's not good. What's going on? Some reasons for this to happen:

Incorrect pruning. Oops! Unwittingly you have cut off the emerging flower buds (perhaps it is a Group 2, not a 1 or 3 and you didn't realize?)

Not enough light. Clematis can grow well in partial shade, but it may need full sun to produce its optimum number of flowers.

Nutrient imbalance. Too much/too strong a fertilizer or nutrient imbalances in the soil are two possibilities. An accredited lab can test your soil sample. The results may surprise you.

Age. There are some clematis that don't produce flowers until 5 years old.

Can You Propagate Your Own Clematis?

You can. There are several ways to propagate clematis:

- Grow clematis from seed. (This is a very slow process, taking up to 3 years for germination, and it will test your tenacity and patience)
- Divide and transplant mature plants
- Layering (A stem of a living vine is pinned to the ground until it establishes strong roots)
- Growing new plant from cuttings (Plant more than you need, a quick and easy method, but not all will root)
- Can I root a cutting in water? Unfortunately, No

In The End...

Growing clematis is easy. Plant deep and mulch. Prune by the appropriate group (now you know what to do, that shouldn't keep you awake at night). There are so many beautiful choices, you are sure to find one that meets any criteria you have.