Beautanicals
SEED FARM & NURSERY

Seed Germination 1.04

Temperature

Common Sense
Gardening

Seed Germination 1.04

Temperature:

Early Warning... This article will not please the 'impatient gardener'.

Nevertheless, this is what happens so we must suck it up and realize that we can work with nature and the last few million years of development, or fail.

All seeds have their optimal germination temperature.
Most seeds will germinate either side of their absolute preferred temperature but the further away from that middle point that you get, the slower the process of germination will be.

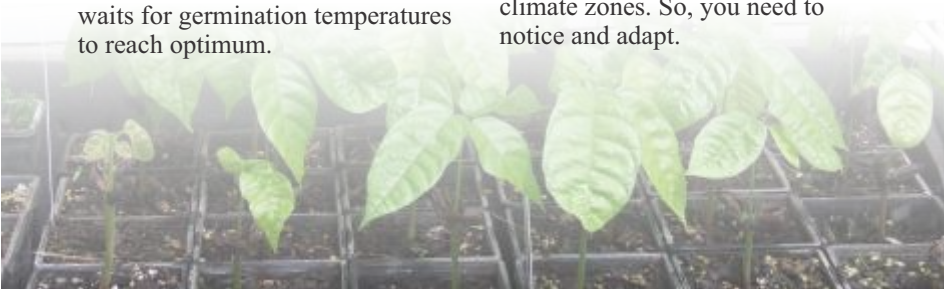
The slower the process, the higher the chance of disease, damping off (rot at soil level) or simply rotting before germination is complete.

The early stages of germination are the most important to success or failure so it makes sense to keep this period of time as short as possible.
Chemical gardening encourages you sow when you feel like it and to this end, supply seed that has been coated with fungicides to hopefully prevent the decomposition of the seed while it waits for germination temperatures to reach optimum.

Unfortunately, this does not always help and the resulting crop can be just as weak or stunted as the seedlings exhaust their supply of carbs before they can photosynthesise.

Now, it is possible to start your seeds indoors if it's too cold outside but you must keep in mind that transferring them outside once they are established will probably quite a shock, so be gentle.

Many popular greens like the brassicas, lettuce and spinach's are best grown during the cooler months as they do not 'bolt' to seed from the heat of summer and are therefore more useful as food during the cooler or interim months. So, sowing the seed towards the end of Autumn is a good idea as the temperature is hot enough for germination and the cooler days of Winter are better for steady growth.
While it is a good idea to take note of suggested planting and sowing guides often provided by gardening magazines and websites, it is just part of the story for you.
You need to tailor your sowing to the particular climate that 'you' live in. Many cities are heat sinks, many suburbs are wind traps, and often your area will not actually fit properly into the generalised climate zones. So, you need to notice and adapt.



The table below shows some observations that demonstrate an emerging pattern and consistent behaviour of seed that is easy to understand and extrapolate across the many varieties that you are interested in growing.

While the list is quite small compared to the variety of plants you are able or willing to grow in your garden it does show quite clearly that if you are prepared to work 'with' the seed you be successful in your particular project.

applies if you do as nature does and *'play the numbers'* by ensuring that hundreds of seeds are left to germinate of their own accord.

The temperature that I am referring to is **'SOIL'** temperature, not air.

Vegetable	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C	40°C
Asparagus			50 days	24 days	14 days	10 days	13 days	19 days	28 days
Beans, Hard				30 days	18 days	6 days	7 days		
Beans, Soft				14 days	10 days	8 days	6 days	6 days	
Cabbage			14 days	8 days	6 days	4 days	3 days		
Carrots		50 days	20 days	10 days	7 days	6 days	6 days	8 days	
Celery		40 days	19 days	13 days	7 days				
Corn, Sweet			20 days	13 days	7 days	4 days	4 days	4 days	
Eggplant	50 days	14 days	7 days	4 days	4 days	7 days	6 days		
Lettuce					2 days	2 days	2 days		
Rockmelon					8 days	4 days	7 days	7 days	7 days
Okra	150 days	30 days	14 days	30 days	17 days	13 days	7 days	14 days	
Onions			30 days	7 days	4 days	3 days	3 days		
Parsley			14 days	17 days	14 days	13 days	3 days		
Peas		30 days	20 days	10 days	7 days	4 days	4 days	14 days	
Capsicum/Chilli				30 days	14 days	7 days	7 days		
Radish		30 days	10 days	7 days	4 days	3 days	3 days		
Spinach	50 days	20 days	10 days	7 days	4 days	4 days	6 days		
Tomatoes			42 days	14 days	7 days	5 days	5 days	10 days	

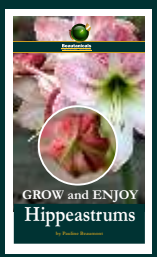
Please Note: Read the 'blank' boxes as 'NO GERMINATION" from that sowing.

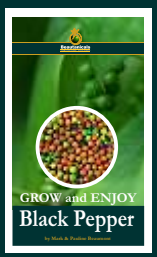
Some seeds like Okra will withstand a long period of time in your seedraise mix without germination but most of the softer seeds such as the lettuce's, Chinese Greens, and the melons will begin to rot after a week or so. In cases like this waiting with fingers crossed will not help.

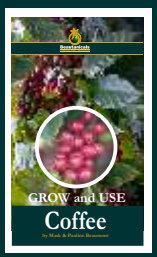
The urban myth that Nature knows best and that the seeds will eventually strike if left alone only

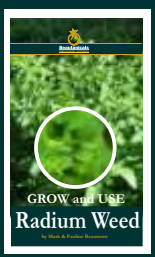
Beautanicals

PUBLICATIONS AUSTRALIA









available online @ australiangardener.net.au