

SEED GERMINATING INSTRUCTIONS



- **GERMINATION**

Seeds need water and oxygen to germinate, so are best started in a light, loose germination mix that will not compact, get soggy, or crust over. Free flow of water & air are a must. Large seeds can be soaked for a few hours with natural plant hormone *Sunshine Epi* (available from our store) to increase germination rate. Barely cover small seed, and sprinkle fine seed on the surface and water by misting. Keep soil moist, not soggy, and do not allow it to dry out.

- **SCARIFICATION**

Sometimes the coat of large hard seeds (outer shell of the seed) needs to be nicked in order to let water in and enable the embryo to break through. It can be carefully cracked or cut with a file or a sandpaper. This is not to say that the seeds will not germinate if these steps are not taken; it may just take longer.

- **TEMPERATURE**

Tropical seeds need tropical conditions to germinate! The soil temperature range should be 80-90° F and there must not be much variation in this. The surrounding air should also be no lower than the mid 70's. When growing of the seedlings occurs, the temperature can be lower at about 75° F during daytime and 70° F at night. Heat mats can be used to increase soil temperature, but be careful not to overheat, and follow safety measurements.

- **SOIL**

The best thing to use is soilless *Seed Germination Mix* (available from our store); it provides the ultimate pH and air penetration, retains water, and is sterile so that the possibility of attracting fungi is minimized. Use special nursery flats covered with clear plastic or humidity domes (see photo). Those can be home-made from any clear plastic container, or an old fish tank covered with a plastic sheet or glass.

- **LIGHT**

When germinating indoors, grow lights can be of tremendous help; they provide both heat and light. Start positioning the lights low (8" above the top layer) and when germination occurs, raise the lights accordingly. When grown into small plants, reduce the amount of light to 12 hours a day.

- **TIME UNTIL GERMINATION**

Average range of time to germinate is usually given in weeks. Seeds that take 2-3 weeks will usually come up fairly evenly; those that take 10-12 weeks will tend to straggle in irregularly. Time varies with temperature, so expect considerable variation. Don't give up too soon - many who have given up and sown another seed in the pot end up with two types of plants in the same pot!

- **PLASTIC BAG METHOD**

Best for very slow to germinate seeds, very tiny dust-like seeds that can't be allowed to dry out, and very slow-growing seedlings. Small clean pots are filled with damp, sterile, soilless mix. Milled sphagnum or a light dusting with powdered charcoal discourages fungi & algae. Seeds are sown and the whole pot or tray is sealed in a plastic bag and placed out of direct sunlight. This creates a mini greenhouse and the soil will not dry out and the seeds are protected from rodents. Bagged pots may be kept under fluorescent lights without overheating.

- **PAPER TOWEL METHOD**

You can germinate seeds in a wet paper towel. This method is tricky; it's easy to ruin roots if they dry out, or are planted too late after germinating. Paper towels dry out real fast! Place wet paper towel in a bowl, and cover with plastic wrap to keep it from drying out. Put bowl in a warm area, water heater closet, or above warm lamps. Check every 12

hours and plant germinated seeds in a potting mix as soon as the root comes out of the seed. Use tweezers, and don't touch the root tip.

- **COMMUNITY POTS**

When sowing seeds in flats or "community pots", transplant individual seedlings into cell packs when the first true leaves appear or when they are large enough to handle.

- **FERTILIZING**

Seedlings should be fertilized on regular basis with mild liquid fertilizer such as *Sunshine Bombino* (available from our store). This will help to produce stockier transplants. Before planting in the garden, gradually acclimate transplants to the outdoors. Start by putting them outside on cloudy days or in a shaded location then after a few days work them into more light and exposure. Water immediately after transplanting and continue fertilizing program.

Seed Guarantees

We guarantee that we ship FRESH seeds (depending on species, for tropical seeds freshness lasts from a few weeks to 1-2 years).

We do not take any responsibility on germination rate or germination time.

We cannot guarantee germination even for the freshest seeds. We grow some of our plants from seeds, too. Some fresh, quality seeds never germinate, and there could be many reasons for it which are outside of our control. This is the nature of seeds - we grow from seeds at our own risk. Seed is a live product which depends on many factors and skills such as proper planting time, seed depth, type of soil, irrigation, proper use of fertilizers, weed controls, fungicides, insecticides, disease free soil, and reasonable weather conditions during the growing period. Germination is affected by such factors as temperature, moisture content, light intensity and contamination of planting media. These factors are totally out of our control and are your responsibility and risk. Consequentially, we cannot unconditionally guarantee seed to perform properly regardless of conditions or the buyer's methods or mistakes.

No replacements or refunds on non-germinated seeds. If you are not ready to take that risk, do not spend the money.

If you received damaged seeds, please contact us within 3 days for replacement.

Please order only within quantity of packs available in stock! If you order more packs than we have available, we will send substitute of the same value.

DON'T FORGET TO LABEL!