

STARTING AND GROWING HEALTHY SEEDLINGS
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Dear Estes Park Gardeners,

I know it may be a little late in the season to be talking about starting seeds to plant out of doors, especially in Estes Park. But I am compelled to share my cumulative experience, over the past nine years in Estes and now Loveland, of propagating vegetable seedlings.

In 2009 I started vegetable seeds in spun rock wool seeding cubes in a south facing kitchen window the last week of February. I arranged these cubes in plastic seeding trays with transparent plastic "humidome" covers to maintain a warm, moist atmosphere for the seedlings. I then flooded the trays in a hydroponic solution of seeding/rooting liquid and water such that each 1.5 inch cube was thoroughly soaked. I then waited and watched.

Results:

- Success, in that about 85% of my veg seeds sprouted in a week to ten days.
- Failure, in that the hydroponic solution propagated more aphids than seedlings.

Fast forward to now, May 5, 2018. My indoor seeding technique has evolved to filling small to medium peat pots with potting or seeding soil, then placing a spun rock wool cube in the pot flush with the soil level, and placing one seed in the cube indentation about 1/4 in deep.

Then, rather than flooding the tray with seeding solution, I hand watered each pot with the same hydroponic solution, maintaining a moderate/constant moisture for each seedling.

Results:

- Success, in that about 95% out of 174 seedlings sprouted.
- Success: No aphids.
- Failure, in that I misjudged the seedling time from tray to raised bed in Loveland. It is about a month ahead of Estes such that I had some really leggy bean sprouts and yellow squash blossoming before I could plant them out. Lesson learned.

The advantages of this last method:

- Spun rock wool cubes produce a much stronger root system for most vegetables. But I would not recommend them for root crops, such as beets, since it crowds the root and results in a stunted crop (plant them directly into the soil in the peat pots without a rock cube).
- Both peat pots and rock wool cubes are biodegradable and can be composted or turned into the soil. I find it effective to save the used, crushed peat pots as a covering mulch around the base of single stalk plants such as tomatoes. Rock wool cubes typically take about eight years to completely decompose but eventually provide essential minerals and tilth to the soil. I am currently experimenting with adding my used cubes and peat pots to a slurry of water and compost starter to hopefully speed up the decomposition process. I will report on this next year.

Two last notes:

- 1) Having a heating mat under the seed trays will significantly decrease the sprouting time of seeds. They usually cost less than thirty dollars each.
- 2) Give your seedlings a breather from the humidomes during the day and put them back on the trays for the evening.

Best of luck this gardening season!

Reference CSU Fact Sheets, available at extension.colostate.edu:
-Growing Plants From Seed #7.409

-Starting Plants Indoors #1034

John J. "Skip" von Kaenel, a retired U. S. Army officer and International Red Cross humanitarian relief delegate, has over sixty years of gardening experience in several parts of the world. He received his Colorado State University Master Gardener's qualification in 2012. Having grown up in the south, he considers himself an enthusiastic aficionado of fine, vine ripened tomatoes as well as all other fresh vegetables and has personally experienced the significant challenges of gardening here in Estes' cool, high altitude environment since 2008. He looks forward very much to sharing his gardening knowledge and experience with other gardeners.