

SEEDS *of* SUCCESS

Following a few basic rules will get your seeds off to a speedy and healthy start.

Jeff Cox

THE PACKETS OF PEAS, radishes, and spinach arrive when snow is still on the ground. They instruct us to plant “as soon as the soil can be worked.” What gardener hasn’t fidgeted, waiting for that magic moment to arrive?

First the soil has to thaw through, so that groundwater can percolate away. Then comes the dirt-ball test: A small handful of soil is squeezed into a ball and dropped from shoulder height to a solid surface. If it lands in a gluey clump, the soil is too wet. Working it will destroy its crumb structure and turn it cakey and hard. If it breaks apart nicely, however, the soil can now be worked.

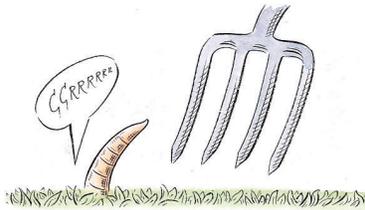
Actually, it’s the gardener who gets worked, but what welcome work it is. Those first days in the garden are like a reprieve from an icy prison. The ground is still cold enough to numb the fingers and wet enough to soak through the knees of one’s gardening pants. Wiping the brow leaves a streak of mud across the forehead. You turn up the soil and dig compost into the beds. You rake them out smooth. The peas, radishes, and spinach get planted, and the new gardening year is under way.

Now, what’s wrong with this picture? Well, the new gar-

dening year should have gotten under way last fall, after the killing frosts but before the ground froze. That’s the time to prepare those early spring beds by deeply digging in fresh manure or compost, raking out stones, smoothing the surface. The deep fall digging promotes good drainage. Over the winter, fresh manure rots into humusy perfection and the freezes and thaws rough up the soil surface. When the frost melts out of the ground, the soil has excellent crumb structure—it’s friable, ready to plant.

Nothing is more crucial to gardening success—especially planting seeds directly in the ground—than properly prepared soil, meaning soil that is as full of actively decaying organic matter as you can make it. After three years of adding manure, straw, and compost to my hard, impoverished soil, I can easily plunge my arm into it halfway to my elbow.

Try to make sure that compost is free of weed seeds. Compost made with seedy weeds only spreads the little nasties around the garden. And pulling tough weeds from around nearby vegetable seedlings can disturb the vegetables’



MATCHING PLANT TO SOIL

HEAVY FEEDERS

These crops—many of them leafy vegetables—need well-nourished soil, especially rich in nitrogen. Dolomitic limestone is a good soil amendment in acid soils, as it not only raises the pH, but adds magnesium, which is at the heart of the chlorophyll molecule.

Beets—Plant $\frac{1}{2}$ to 1 inch deep, 3 or 4 weeks before last frost date. Soak seed overnight before planting. Seeds are compound, so thin to one seedling.

Cucumbers—Plant 4 or 5 seeds to 1 inch deep in a circle on a hill of good soil, after the last frost. Thin to two strongest plants when they have four true leaves.

Kale—Plant $\frac{1}{2}$ inch deep, one foot apart, 12 weeks be-

fore first frost date in fall.

Radishes—Plant $\frac{1}{2}$ to 1 inch deep as soon as soil can be worked. Sow thinly—crowding and pulling out extras harms neighbors.

Spinach—Soak seed for 24 hours before planting $\frac{1}{2}$ inch deep, 2 inches apart. Plant in acid soil pH 6.0 to 6.5—more alkaline soils cause manganese deficiency, yellowed, curled leaves.

Summer squash—Plant six seeds 1 inch deep in a circle on top of a hill of rich, loose soil. Don’t compact soil. Thin to strongest two plants. Sow three weeks after last frost date.

Lettuce—Plant $\frac{1}{8}$ inch deep, 1-2 weeks before last frost. In hot weather, place seeds between moist paper towels and place in fridge for 3-5 days to break dormancy.

roots and set them back. This touches on another secret of growing great vegetables: Avoid setbacks. From seed planting to fruition, growth should be steady and plants well nourished, well watered, and not compromised by weeds.

I've found that success in the garden is less a matter of learning what to do than learning what not to do. And so, when sowing seeds directly in the ground, I've discovered that less is more. I think of each seed as a mature plant. While large seeds—peas, beans, and squashes, for instance—are easy to plant and visualize as mature vegetables, smaller seeds pose a challenge. When seed packets say “plant 1/8 inch deep,” it's tedious and darn near impossible to get tiny seeds under the soil surface at those minute depths. Lettuce seed, for example, is too tiny to plant seed by seed. And yet it's possible to take a stab at it. “Guess-timate” about 35 or 40 seeds and mix them in about a half cup of dry sand. Now take the sand in your hands and scrub your hands back and forth together, letting the sand and seeds fall evenly on the surface of a two- by five-foot section of bed. Cover the seed with a half-inch of finely screened compost and gently press this down. Two weeks later, plant another five-foot section. I could do it the old-fashioned way and simply toss lots of seeds out on the bed and then scumble them into the soil with a rake, but then I've given myself a long, tedious job of thinning after the seedlings emerge.

Finely screened compost is an essential part of the process when it comes to tiny seeds. I nail a fine screen over the bot-

tom of a wooden box, then scrub compost back and forth over the screen, collecting the fines that drop through for planting small seeds. Peat moss will work, finely screened leaf mold will work, even sand will work to cover seeds to depths of a fraction of an inch. But nothing beats finely screened compost.

I can then place the seeds on the surface of the bed and gently cover them by returning the screened compost to the box and shaking it back and forth over the bed until the seeds are covered to the proper depth. Then I go over the bed with my hand, pressing down the surface just lightly enough to snug the seeds into the soil. Soil that's low in organic matter can form a hard, crusty surface when it dries, and many germinating seeds—turnips, for instance—have a hard time struggling up through soil that has crusted over. But soil will never crust over when covered with screened compost.



Once planted, seeds need a continuously moist soil to germinate and grow. If they dry out when they're sprouting, they die. Once they're up and growing, you can back off keeping the soil surface moist. And of course watering should be done so as not to disturb the germinating seeds or seedlings. A hose nozzle attachment that gives a soft spray, or better yet, a thick mist, wets the soil gently.

I plant as many crops as possible directly in the garden. I don't have anything against starting seeds in pots and flats, but I just love to get my hands in the soil and smell the fresh earth as I place new life into old ground. ♡

LIGHT FEEDERS

These crops—mostly root vegetables—will develop hairy, split roots if the soil is too rich in nitrogen. They also prefer very loose, well-drained soil.

Carrots—Mix seeds 50-50 with dry sand, spread thinly over bed 2-3 weeks before last frost date, cover with a 1/4 inch of screened compost. Soil should be low in nitrogen, loose and silky. Takes over a week to germinate.

Parsnips—Soak seed overnight and plant 1/4 inch deep covered with screened compost. Plant two weeks before last frost.

Potatoes—Plant whole spuds that have been pre-sprouted by placing in 40-50°F spot (no warmer) for two weeks. Plant at last frost date 4 inch deep and one foot

apart in rows three feet apart. Mulch heavily.

SOIL BUILDERS

These legumes form an association with nitrogen-fixing bacteria and actually improve the soil they grow in. In new areas of the garden, treat the peas with a seed inoculant (dried spores of nitrogen-fixing bacteria).

Beans (all kinds)—Plant 1 inch deep, two weeks after last frost date. Space dry beans 4 inches apart in rows 20 inches apart; snap beans 2 inches apart in rows a foot apart.

Peas—Plant 1-2 inches deep in loose, well-drained soil as early as soil can be worked. Space bush varieties 3 inches apart in all directions. For climbing varieties, plant 2 rows 6 inches apart with peas spaced 2 inches apart in each row. Hang trellis between the two rows.