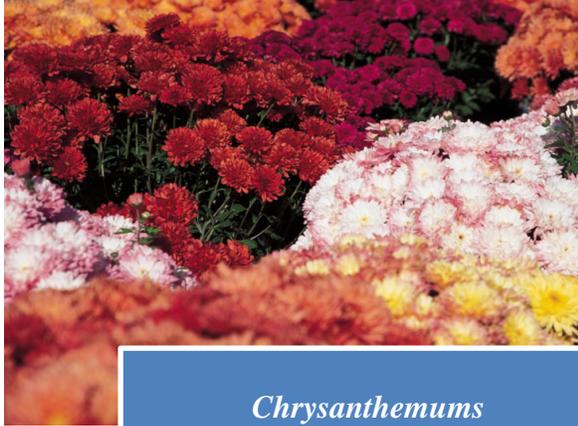


Tricking plants

Plants survive using any available means. Although they evolved under sunlight for growth, they can be fooled into growing under many different kinds of light, as long as there is **enough** light. Because of their drive to grow, we can trick plants into growing indoors under fluorescent bulbs. If not, how could we have window sill gardens, or house plants?



Chrysanthemums

We can change the number of hours of light a plant receives, making a day longer or shorter. This causes it to flower at unnatural times. Chrysanthemums are a good example. They are available in many colors and in full bloom for Christmas, Mother's day, graduations, and St. Swithen's Day (July 15th). In their natural state, however, chrysanthemums would blossom only in the fall after days have gotten short – in time for Halloween or Thanksgiving. It must be deceived into producing flowers at those other times.

Tinkering with the light is not the only way to fool plants. Fertilizers are another way that we fool plants into doing something abnormal. In nature, plants get their nutrients from other plants losing their leaves or dying, and from animal droppings. Plants in cultivation, farther away from natural systems, require general purpose fertilizers, rose fertilizers, cactus or vegetable fertilizers instead.

Rather than being surrounded by other plants, with soil nutrients available, plants will survive, or even thrive, in small containers with their roots packed together in pots. As long as the pots have drainage, and we give them fertilizers, those plants withstand tough conditions.

The plant is in the business of growing: producing leaves, roots, perhaps flowers. Without enough light, it becomes weaker, probably will not reproduce, and might die. Taking advantage of whatever light is available is a survival tool. While artificial light cannot provide all the wavelengths found in sunlight, plants adapt, and use whatever they can.

Plants are programmed to reproduce, whether they are familiar house or garden plants, crops, or plants that live only in rainforests. An important step in that process is flower production – flowers, pollination, seeds, procreation. If the plant blossoms when we provide the right light, it meets its reproduction mandate.

I generally try to guide people into using compost for getting essential nutrients to plants. It is much more similar to its natural nutrient sources. Whether incorporated it into the soil, used as a top dressing, or made into a tea and poured, compost slowly provides nutrition and improves growing conditions. Plants have used this for hundreds of thousands of years.

On the other hand, plants need nutrients, and if we do not provide them with a refreshing bath of compost tea, they use whatever is provided. Soluble fertilizers mixed with water will do. Fortunately, we already know that 14 minerals are essential plant nutrients, in addition to carbon, oxygen and hydrogen. The last three they get from air and water, and the others are available in fertilizers. Unless there is a nutrient yet to be discovered, plants will do fine, since they are not dumb; they are adaptable.

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