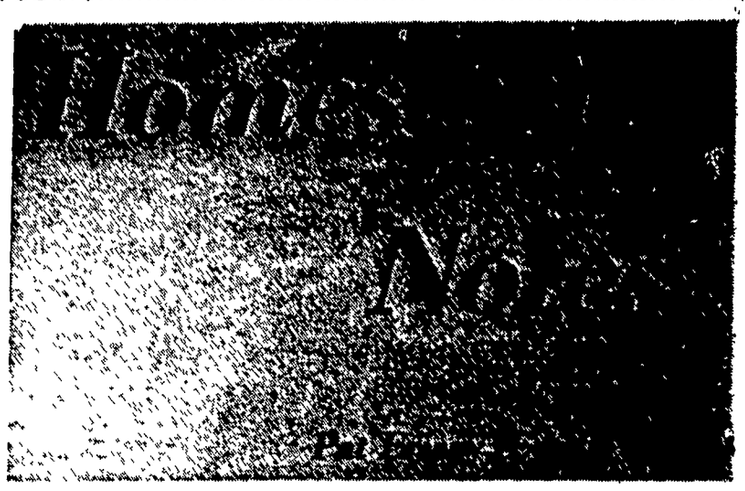


A Guide To Successful Bedding Plants

Now's the time to put into action all those gardening plans you made during the long dreary winter. Don't hesitate another minute because it's spring planting time!

For real satisfaction and learning experience you may be considering growing your own bedding plants from seed. If so, Dan Helwig, floriculture teacher at the Mount Joy Vocational Technical School, offers some suggestions to start you on your way.

The basic "tools" needed for your project will be some flats, some soil mix, and seeds. Plastic flats can be purchased, but wooden flats can be made easily and cheaply with materials you may already have.

Helwig suggests a soil mix of finely ground peat moss and vermiculite, mixed in equal proportions Such a mixture can be purchased commercially under the names "Jiffy-mix" and "Kys-mix "

The advantage of using such a mix instead of field soil is that it has been sterilized and there is no danger of disease, pesticides or herbicides which might inhibit germination

Better germination results from a mix because it is light and consistent, with a known ph-4.5

After putting your soil mixture in the flat, Helwig suggests that you add a small amount of spagnum moss on top. The spagnum will help avoid damping off which is a common problem in flats using regular soil. A wilted appearance is evidence of damping off. There are serveral chemicals available to combat this problem, but a sterilized soil mix is a good way to avoid it.

Next sprinkle your seed on the mix Helwig suggests broadcasting the seed evenly over the flat, although it is alright to plant the seed in rows if you prefer.

If the seed is larger, such as a zinnia, a fine coating of soil may need to be placed over it

The soil temperature should be maintained at 75 degrees. In the controlled greenhouse, this means placing the flats in an area with heating pipes under the flats and a mist arrangement over them which maintains constant moisture.For the homeowner, the flat could be placed near the furnace, to be kept warm until germination. Light is not critical at this point, and after germination the flat can be set where it will receive more light. The flat must be checked daily for moisture so the seeds do not get too dry.

After germination, the flats should be placed in subdued light and allowed to dry off, according to Helwig. The temperature should be reduced and no direct sunlight is necessary.

Fertilization should be done after germination and should be carried out lightly and with care. Begin by using half the recommended amount of your fertilizer. Increase amounts slowly.

When the plants reach about 1½ inch in height, they can be set outside at a protected cellar window with plastic over them or on an enclosed porch to help them gain strength. Helwig suggests bringing them in the first few nights until they become hardy enough to withstand cooler temperatures.

Next, thickly seeded flats should be re-planted into peat or clay pots. They should be potted individually, and Helwig cautions that you should break out the bottom of a peat pot before it is set into the soil. If your plants are not too thick, you may be able to keep them in the flat until they are set in the soil.

Helwig says it is purely a "matter of judgment" as to when the plants can be set out in the soil. He reminds us that the frost date here is May 15, so planting earlier can be a risk. It also depends up the individual vegetable or flower and its hardiness.

Helwig feels that in most cases it is far better to start plants in flats because when you simply spread seed, it must contend with birds, insects and diseases.

One of the problems with raising plants in flats is that sometimes they do not appear as hardy as "bought" plants. Helwig says a lot of this can be blamed on intensity of natural light, which is the one factor which cannot be controlled. Setting the flats outside before putting the plants in the soil will help make them hardier, he says.

Helwig says that the question of whether to germinate your own seeds or buy bedding plants from the greenhouse depends a lot upon the individual. Cost is not the only consideration, but whether "you have the time and the patience." He cautions that "it may not always work out for you. Another consideration is whether there is room in your home to set flats with the germinating seeds. He said, "If you have the time, you can have a lot of fun and learn a lot."

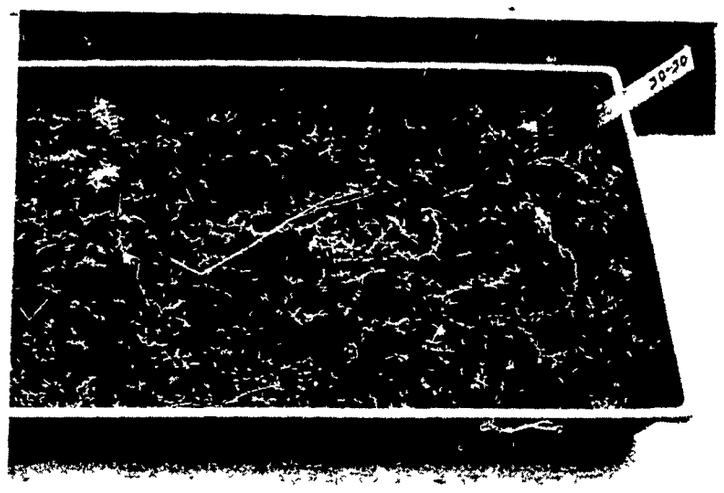
It's quite a challenge to grow your own plants from seed and the satisfaction of producing a vegetable or a lovely flower cannot be equalled.

But he said, Lancaster County produces an abundance of bedding plants, so you can go to any greenhouse and purchase your needs. The quantity of plants you desire will also have an effect upon your decision to grow or to buy. One advantage of buying plants is that they usually produce earlier, and are almost always hardy.

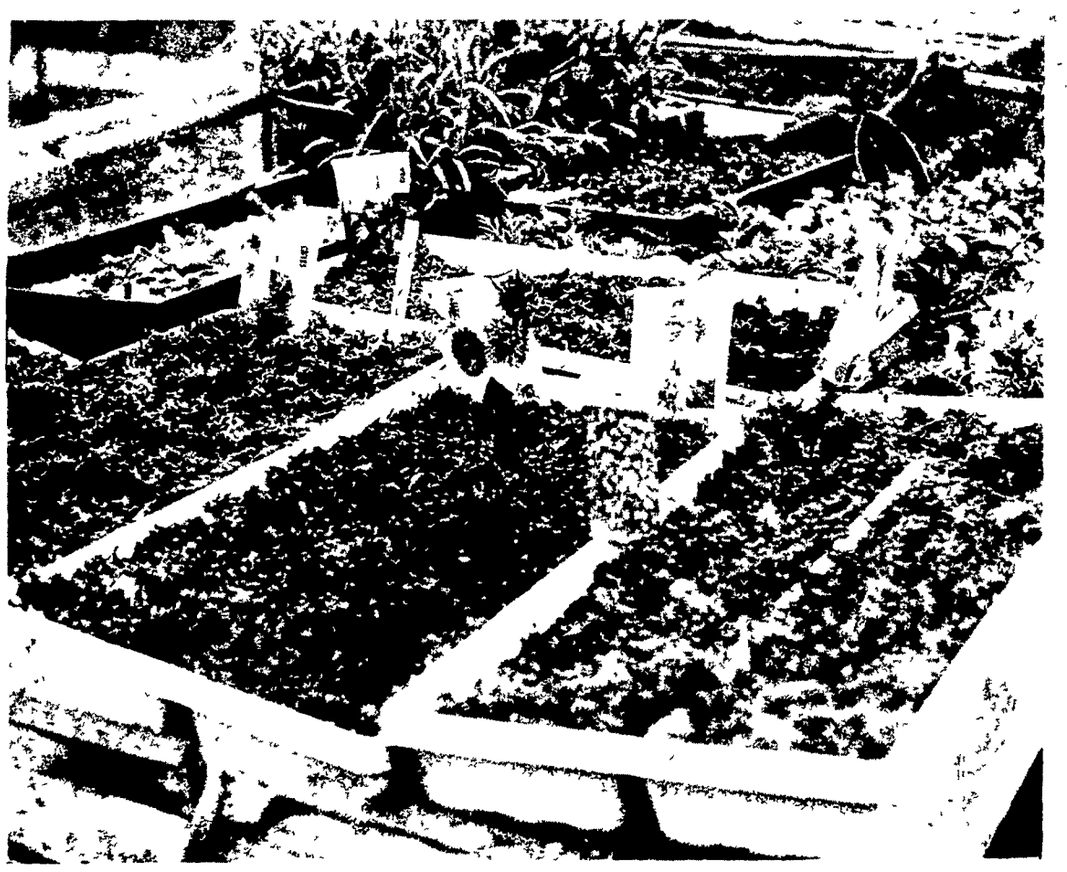
Seeds for your flats are readily available, and Helwig said, "We never had such a large selection." He said we all benefit from the tremendous breeding improvements which mean hardier, disease resistent plants.

So, if you've got the time and a little extra space for a few weeks, why not buy some seeds and let the whole family share a learning experience which can help ease your food budget and beautify your home.

If you need additional advice, or have a specific question your local Penn State Extension office can supply further information.



A completed flat, ready for the seed, is shown here. The soil mix is finely ground peat moss and vermiculite, and there is a fine cover of spagnum moss. The flat is plastic.



Seeded flats are shown in the greenhouse area where they will be misted automatically to keep the soil moist. There are heating pipes under the flats to maintain a constant soil temperature of 75 degrees. It's important to keep accurate records of your seeds, because when they first appear they often look like something quite different from the mature plant. Note the markers here.

Jim Stauffer, a student at Elizabethtown High School, is transplanting plants to individual pots.