Heirloom/Open Pollinated seeds vs. F1 Hybrid Seeds

Watch out when you bring this up in gardening blog spots. There is a war out there. What is the truth? Is there a middle ground? Both types of seeds have their pro's and con's, advantages and disadvantages, but neither can trump the other because when it gets right down to it, which is best is all a personal preference. Both have unique characteristics and traits that make the seed special. I will try to lay out the benefits and the negative points of each, and then each of you can decide which is best for you in your situation.

First off let's lay out some definitions:

- The term F1 hybrid means the first filial generation made by crossing two different parent varieties, the offspring of which produce a new, uniform seed variety with specific characteristics from both parents. This same cross must be done each year to produce consistent F1 hybrid seed. The pollination cross is done by control conditions (fields of other varieties miles away) so that no cross pollination (from wind, bees or any other source) will occur.
- Heirloom and Open Pollinated seeds are considered two different types but for our purposes we will lump them together. Generally the definition of these varieties is varieties that have been around for 40 to 50 years, and that has been preserved and kept true in a particular region. In the case of Open Pollinated seeds they are pollinated by wind or bees and their traits are relatively fixed within a range of variability.

What does this all mean?

I think that both hybrid and open pollinated/Heirloom varieties deserve a legitimate and useful place in any home garden.

Hybrid seeds are usually the seed of choice for commercial farmers because they grow faster, easier, are disease tolerant, and create more produce than heirloom seeds. However, there are discrepancies as to the lack of taste hybrids have. This is true to an extent. When hybrid seeds first were developed they did have rather bland flavors, but today many hybrids out perform heirlooms with exceptional flavor, taste, and texture(these are the ones we strive to offer at ABCeeds). Hybrids allow those of us with shorter seasons to grow and harvest quality produce because of shorter maturity dates. The disadvantages of hybrid seeds is the lack of distinguishable varieties and colorful produce that many gardeners prefer. Lastly, but probably most significant disadvantage of hybrid seed is the inability to harvest seed and have it have the same characteristics as its parent.

Heirloom/Open Pollinated seeds are known for their varieties, colors, flavors, and textures. The produce from heirloom varieties, when grown properly and harvested timely, can be a better product. Another advantage of heirloom seeds is that gardeners can harvest seeds from this year's plants to plant next season. As long as **no cross pollination has occurred during the growing season** (this can be difficult), gardeners can expect the same results from the seed they harvest. However, with these advantages also come many disadvantages. Heirlooms are not tolerant to diseases and are harder when trying to harvest quality produce. The biggest disadvantage, I feel, is that most heirloom varieties grow to maturity and are best when harvested within a couple day time frame. This makes it extremely hard to harvest a quality crop. For example, I like to harvest sweet corn over a long period of time, so that I have fresh corn every day. With heirloom varieties the milk stage of sweet corn is only a couple of days but with hybrids the milk stage can be as long as two to three weeks long.

Overall, both heirlooms and hybrids deserve their place in any home garden. Heirlooms may be best for emergency preparedness offer the ability to harvest seed for future use. Hybrids offer disease resistance, reliable productivity, and particular maturity ranges. Whatever seeds are chosen, gardeners should embrace the diversity of seed available and

grow the best of both worlds. Enjoy the satisfaction of growing and eating what you grow and experiment with what grows best in your garden. Gardening is an evolutionary joy that is fun and challenging with great rewards.

More info on this subject: **University of Illinois Extension**

Planting and Transplanting Tips

Many gardeners germinate vegetable seeds indoors so that when it is time to plant vegetables outdoors they already have a head start on their garden. There is nothing complicated about planting seeds indoors. These nine tips show how simple it is.

1. ***The time to sow seeds*** indoors depends on when plants may normally be planted outdoors. Plant indoors a few weeks earlier so that the vegetables are ready to plant outdoors at the appropriate times. Look at the table below for approximate number of weeks before last frost date to start seeds indoors. Seed starting date is based on the "last frost" date. It's up to you of course but whatever date you choose this chart will help you set your seed starting dates.

2.***Buy seeds from People that know seeds***:
- so the seeds are disease free
- stored correctly, kept dry and cool

3. ***Sterilize containers used for sowing seeds***
- wash in soapy water
- rinse in a solution of one part bleach and 10 parts water

4. ***Use what ever containers are available*:**
- yogurt cups, margarine tubs etc. should have holes in the bottom for drainage
- plastic trays are ideal for small seeds
- paper egg cartons, old cardboard toilet rolls or peat pots can be planted outdoors, with the growing seed still inside, at planting time.

5. When sowing seeds:
- use loose, well-drained, and fine textured soil or potting soil
- water the seeds in
- put pots in clear plastic bags
- leave in a warm place out of direct sunlight

6. After germination:
- take pot out of plastic bag
- place pot in bright light
- let soil dry between waterings, but do not allow seedlings to wilt

7. Start "hardening off" two weeks before planting outside:
- gradually move seedlings to an area with cooler temperatures
- when first place seedlings outdoors, keep them in the shade
- bring them inside at night
- gradually move plants into the sunlight for short periods each day
- slowly increase the amount of sunlight and time seedlings spend outdoors.

8. Transplant seedlings into the vegetable garden on a cloudy day or late in the afternoon to prevent sun damage.

9. Once in the garden,
- check the seedlings daily
- water when necessary to prevent wilting
- cover with nets to protect from birds
- look out for slugs and other pests
- cover if frost is forecast

Germination Temperatures for Vegetables

In general, it is better to sow your seeds a little late rather than too early. If the soil temperature is not warm enough for the variety of seed you are sowing, the seed will often rot in the ground before it has a chance to germinate. **Remember - the temperatures listed below are for the soil, not the air.**

In the spring, the air temperatures may be warm for a few days, but this will have little effect on the soil temperature. Only when the days and nights both stay warm for an extended period of time will the soil temperature start to rise.
Sowing vegetable seeds in the spring should not begin until the soil temperature at seeding depth reaches or exceeds the necessary minimum temperature for germination.

How Long to Keep Garden Seeds

- Store vegetable seeds and annual seeds for 2 to 3 years in a cool area with little moisture.
- We are conservative on the length of time to store seed. If conditions are favorable seed can be stored for very long periods of time but we play it safe so that your seed is fresh and ready for action when you need it. That is why we believe your seed should be rotated just like your food storage. Plant the seed that is on the shelf for storage each year and replace with new seed. This way when it is needed it will always be fresh and ready to go.

Choose Containers to Store Garden Seeds

- Store garden seeds in unopened, moisture resistant packaging like foil pouches. Here at ABCeeds we use sealed breathable mylar packages for long term storage, if needed. Every package of seed we send out comes to you in these special mylar packages. These packages allow the seed to breathe, wick away excess moisture from the seed and keep water out. Sealing seed in air tight containers when not taken care of properly may cause the seed to die or mold(from condensation). Paper and Plastic bags are worse, they dry the seed out and it loses its viability.
- Keep individual varieties of seeds segregated in separate, clearly labeled containers. This helps to maintain seed strains and purity.
- Label all containers with seed type, variety, year of original parent seed and year of seed in container.

Where to Store Garden Seeds

- Avoid exposing the seeds to multiple temperature fluctuations.
- Keeping seed in a cool dry area is best. Here at ABCeeds we like basements the best for storing seeds.