

The Oil Drum: Campfire

Discussions about Energy and Our Future

Saving Seeds: Is this the way to go?

Posted by [Gail the Actuary](#) on October 8, 2009 - 10:27am in [The Oil Drum: Campfire](#)

Topic: [Environment/Sustainability](#)

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Through most of the world's history, people have saved their own seeds and replanted them. Now we have a multitude of hybrid seed to choose from. These hybrid seed have a lot of advantages-crops are very uniform, so they are easily harvested, and all mature at the same time. The crops generally have a very good yield, especially when adequate fertilizer is used, sufficient water is available (often through irrigation), and pests are kept under control.



But over the very long term, it is not entirely clear that we will be able to keep up this system. We likely won't have the commercial fertilizer, nearly as much irrigation, and probably not chemical pesticides and herbicides. We are likely not to be able to store the food as well, either, or to transport it long distances.

In the new circumstances, it probably would be better to have more of a diversity of types of crops planted, because this would give more redundancy, if the weather happened to be bad for one crop, or insects or disease attacked one seed. It would probably be best not to plant the crops in a "monoculture", because this would give pests an easier time to get a foothold, and perhaps wipe out the entire crop.

It probably would also be best to have crops maturing over a long period, because this would cut down on storage needs. It might be best if the seeds have some genetic variety to them, because this would make them more adaptable. So what should we be doing now?

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What would it take to [start saving seed](#) for a new system?

I really haven't looked into this adequately to figure out for certain. It probably would not be desirable to save hybrid seed, because these do not breed true, and some of the seeds of hybrid plants are not fertile. But if we just wait until our current industrial agriculture system starts unwinding, and need seeds from somewhere, it seems like the vast majority of seeds available will be hybrids, and we will be forced to plant offspring of hybrid seed, for lack of any other source of seed.

A much better source of seed would be seed from companies that sell heirloom seeds or open-pollinated seeds. There are also companies selling organic seeds. Some of the organic seeds seem to be open-pollinated as well, but I am not certain whether all of them are. Some may be hybrids, but raised without chemicals. Perhaps someone can explain this.

If one does raise plants from seed, and save them, the next question is how much care one needs to take to see that the seeds do not cross pollinate with hybrids planted near by. Some types of plants (Beans, Chicory, Endive, Lettuce, Peas, and Tomatoes) are self-pollinating, so this would not be an issue. But with other types of plants, cross-pollination with nearby hybrids likely would be.

Seed companies take great care to protect their seeds from unwanted pollen. One then has to get the desired pollen to the plants. One web site I visited talked about using a small brush to transfer pollen from one plant to another. This sounds like a huge amount of work! Somehow, it is hard to see most people doing this long term.

There are a lot of details that one needs to be aware of, that vary with the type of seed being saved. For example, vegetables often need to be very ripe--much riper than when we eat them--for the seeds to properly sprout. So if one is going to do this, a person needs to do some homework for the particular type of seed. It is also important to store the seeds in the correct way. There are details, too, such as disease transmission through seeds that can be a problem. So saving seed is not a "slam dunk".

Discussion Questions

1. How important is it that we start thinking about this question now, rather than when industrial agriculture starts having problems?
2. What experiences do people have with seed saving?
3. Are there any particularly good resources that people can recommend in this area?
4. How does one avoid problems with pollination with hybrids?
5. Are there any particular issues we should be aware of with grains? I have heard that nearly all corn is hybrid, for example.
6. It is quite possible that yields will be lower, with non-hybrid seed. Should this deter us from studying the issue, and developing greater supplies of open-pollinated seeds suited to particular areas of the country?



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