Native Seed exchange: How to info.

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These are my thoughts on the planting of native plant seeds or any seeds. First, the two major groups of plants are the annuals and perennials. Annuals live for one year and produce seeds before the end of the season. The plant then dies and the seeds are the link between this plant and the next generation. Note that once the seeds are produced, the plant will die and killing the original plant has no effect and you are not destroying future plants if the seeds are already produced.. There is a note that killing an annual after the seeds are produced is like murdering a man who is committing suicide. Perennials live for more than two years and often rely more on non-seed reproduction for producing new plants. The above ground stems die during the winter but the below ground parts, the rhizome, tuber, bulb, corm, crown, etc., survive during the winter and the next spring, a new plant (actually the same genetic plant) sprouts from the underground part. Thus this is reproduction via non-seeds. If the underground part gets broken into two parts, then there will be two plants the next spring. We often take these underground parts, for example Irish potato tubers, and divide them into several pieces which we plant and thus have several new plants. During the growing season, you could take cuttings from your perennial plants and root them and then you will also have new plants. Perennials can produce seeds also but do not have to rely 100% on this method like annuals do and the percentage of viable seeds among perennials is often low.

Gathering, Harvesting, Collecting Seeds

Gather seeds when mature or nearly so. Immature seeds are usually green and darken as they mature. If you are in an area and the seeds seem not quite ready, you might consider collecting them anyway. We have found that almost mature seeds will often mature in the bag. But, if you can come back to the area in a week or so, then wait. Of course if the plant is in your yard, then you can wait. We place the seeds in paper bags and label the bag. I have forgotten to label bags and lots of seeds look alike especially those from the same family and even more the same genus. You could gather the seeds into plastic bags but be sure to transfer to a paper bag or spread them out on paper or cloth shortly. Seeds will mold in plastic bags. We place the open paper bags on top of the refrigerator to dry. The heat from the top of the refrigerator will move thru the bags of seeds and dry them. If you end up with lots of seeds in a bag, you might want to separate them into 2 or 3 bags. If the bag is too full of seeds, the seeds may mold since air could not move thru that many seeds. Another way to dry seeds is to spread them out on cloth or paper. This works quite well but of course requires more space for drying.

Once the seeds are dry, the best place to store them is in the refrigerator but that will depend on you having enough space for them. Seeds can also be stored in your house or even outside. But the refrigerator is better than the house and the house is better than outside. The refrigerator and to a lesser extent, the house will be exposing the seeds to cooler temperatures (stratification) which may be required for some seeds to develop mature embryos. Also, the refrigerator is a great barrier for keeping insects away from the seeds. You could keep the dried seeds in the same paper bags or transfer them to plastic bags.

The general rule is that fleshy fruits and seeds should be kept fleshy until planted but I have seen some fleshy fruits/seeds that germinated after drying.

Processing Seeds

Some seeds quickly separate from the fruit or other plant parts but other seeds cling and are difficult to separate. Sometimes, the seeds can be separated by shaking the bags but others may require more effort. We have used a blender to separate seeds; I placed duct tape on the blades but it comes off readily so I just run the blender for a short time. You will destroy a few seeds but you do get separation of seeds from fruit etc. Another method is to place the seeds in a trash can and then run a weed eater in the seeds with the lid placed over the top as much as possible to keep the seeds in. You can use a plastic or metal but you will have a lot less noise with the plastic. There are also leaf mulchers that use string like a weed eater that you can pass the seeds through. After the above seed treatments, you can run the seeds thru sifters to work toward pure seeds. I usually just pick out the large pieces and leave the rest. My theory is that the extra plant material with the seeds could contain spores of the beneficial mycorrhizal fungi and thus would be planted in the soil with the seeds. And, the extra plant material will provide shade and later organic matter to the germinating seed. And, perhaps, the most important factor, I am lazy.

Planting of Seeds

Now here are some of my thought on the planting of seeds and is divided into two parts (1) planting in soil and (2) planting in containers. This first paragraph applies to seeds plant in soil or in containers. First remember that the wild collected native seeds are going to have a low germination percentage. Don't expect the same kind of germination that you get from vegetable or flower seeds that you buy from Walmart. Those seeds have been prostituted over the years; they have undergone selection so that almost all of the plants are exactly alike and of course, have a reliable and high seed germination percentage. The native seeds, on the other hand, are straight from the wild, and thus have a low germination percent, especially the perennials.

Now for planting in soil: remember that the seeds in the wild fall to the ground often mixed with the fruit, flower, leaf, stem, etc material from the parent plant. And the seeds mostly fall in the fall of the year in nature. You are saying where is he going with this? What I think is that (1) native seeds should be planted in the fall of the year as would have happened in nature. If you can't plant them in the fall, then plant them as soon as possible but no later than the end of April. If April has come and gone and you haven't planted your seeds, I would put them in the refrigerator and wait until the fall. And (2) native seeds should be planted with the material that came with the seeds, the fruit, the petals, the leaves etc. I hope to test this theory but it is my belief that seeds germinate better if planted with some of the fruit, flower, leaf, etc. material. This could be linked to chemicals in the material, or fungi spores, or ? Very important to me is to prepare the seedbed as much as possible so the seeds are in contact with the soil. And, of course plant the seeds as deep as the seeds are big as with all seeds. I also recommend raking or packing or? to somewhat bury the seeds. I know that there are a lot of people and groups that like to drill in the seeds so as not to disturb the soil and encourage weeds. I have found with the restorations at Eunice and Duralde and my house that the annuals will be there the first year or so but go away if the soil is not disturbed. And the drilling seems to place the seeds too deep and the seeds are planted in rows like a pine plantation. You can read more about my recommended planting method on the "How to" for establishing prairie.

And, now for planting seeds in containers. I like to plant native seeds in good soil and control the environment since the germination percent is low. I soak large seeds overnight but not the small ones as the small seeds are difficult to handle and plant as they stick to your fingers etc. I like to use good potting soil in pots or trays. I was using the aluminum trays that are sold for baking turkeys etc and I punch drainage holes in the bottom but found that I had to double them up as they were too flimsy. A better pan is the plastic dish pan container. A soldering gun or wood burning tool works great for making holes in the plastic. I also recycle old pots and skillets and plant into those after drilling holes in the bottom unless the pot is so old that there are enough drainage holes already. And, I saw pictures of trays made from the rectangular fruit juice plastic containers and will try that this fall. I label the trays or pots using a marks a lot or pencil on white plastic labels. You could buy white plastic labels or take your old chlorox bottles and cut them into your own labels. After planting, I place the pots on the ground in a shade to partial shade spot. Be sure the bottom of the pot or tray is in contact with the soil. Water the pots or trays periodically and be patient. You will get seeds to germinate in the pots/trays but in some case it might be quite awhile and in some cases it will not be what you planted but weeds whose seeds got into the pots. I have seen germination in a few days to a few years. I suggested this method to a friend and she came back to tell me that the seeds were germinating and each time that she saw a tray with seedlings, she thought of me. Once the plants are up and well rooted, I transplant them into the spot where I want them or into pots and later to the soil. You could plant seeds in the containers just about any time of the year since you are taking care of them.

If you have other suggestions, please send them to me or the group. And, if you try any of these methods, let me know your results.

Seed Exchange

Charles and Susan Allen will try to spearhead this movement by collecting seeds from their property and nearby and then let people know of which seeds that they have available. You should also collect seeds and exchange them during meetings etc. We will also mail seeds to you for the cost of mailing. The list of seeds should be posted shortly on www.nativeventures.net