

Just going through a backlog of emails and found yours. Here is my best advice that works for most locations and will give you some food for thought as you begin making plans for your garden spot and determine what you will need to have ready in terms of money, materials and labor. You will also want to determine the purpose of the garden, a beautiful addition to your personal yard, a resource for pollinators, an educational space for schools for learning about plants or as a quiet space when one is needed. Native plants also provide services such as absorbing rain runoff in a rain garden, privacy screens for neighboring properties, habitat and food sources for birds.

Use local native plants. These may or may not be readily available. Search on the internet for native plant seed sellers in your state, or more importantly, from the type of soil in your region. The EPA has developed Ecoregion soil maps for the US. These maps show the type of soil at the surface that you are probably planting into. In the case of new home construction, often soil is brought in from other sources, so you may be working with imported unknown soil. Understanding the characteristics of the soil you have, and learning to work with it will lead to greater plant success. Planting natives into an old fashioned garden space that was covered in plastic and then topped with lava rock will likely lead to failure. Soil is the number one consideration for native plants. Take the time to learn what kind of soil your plants need to thrive.

Link to the EPA Ecoregion soil maps website:

<https://www.epa.gov/eco-research/level-iii-and-iv-ecoregions-state>

I am collecting a growing list of local native plant seed and plant vendors. See the list of native plant seed and plant resources on my page: <https://nativeplantnetwork.com/seeds-plants>

Doug Tallamy is an entomologist and author who has two books you must read and make available to your project help: [Bringing Nature Home](#) and [Nature's Best Hope](#). He has already gathered all the evidence and reasoning for planting native and he clearly makes a case for "why" planting native is so important. The second book is a companion to his nationwide project, HomeGrownNationalPark.org. Check that website for resources and inspiration. There are few, if any, protections for native lands in most states, and more people and agriculture all of the time are reducing the remaining undisturbed places. It is very important that you get the word out on plant ecosystems to your neighbors, townships, cities and local garden clubs. I can't make improvements on what Doug Tallamy has already done for the native plant world in the US - so I'll refer you to him.

Native plant seeds "in a can" or in packages in cereal boxes may have one or two species that are generally appropriate, but usually always contain showy annuals that are not native that give a pop of feel-good color (zinnia, generic coneflower, generic daisies). These kinds of plants are not from your area and don't offer anything worthwhile toward "native restoration".

Because of the low number of people collecting local native plant seeds, availability is low. Some things to consider - roadsides, hay meadows, and cemeteries in your area. Newly disturbed sites will be filled with weedy, first year colonizing plants so they do not provide a good resource for collecting native plant seeds. Old cemeteries, neglected roadsides and hay meadows are the best sources to find native plant seeds. Never dig plants, cutting the tap root usually kills the plant and it cannot live to produce more seeds. Check in with your local Conservation District, NRCS office, and ask who is growing prairie hay in your area, then see if you can collect seeds from the margins of those hay meadows, or hopefully find an uncut piece of hay meadow where there might be some seeds left from the last growing season on some of the plants. Also, in my area I know the locations of all the hay meadows, I notice that some are not cut until November, when all of the seeds left on the fall standing vegetation should be viable. I'd love to get my hands on a giant bale of prairie hay and roll it out on a piece of land and see what comes up over 3 or so years. Perhaps you could find a late-cut hay bale to go through?

As far as seed bombs, they sound fun but probably are a waste of seeds. Making a ball held together with clay desiccates the seeds, and then if the seeds are not actually spread out with a firm contact with soil, they are not able to grow. If the bomb shatters in a lot of pieces that fly apart, who knows where the seeds end up and if no one can identify the seedlings, they won't be watered or escape the mower or weed whacker. If the seed bomb is just pressed into the soil, there is too much competition for a random variety of plants to grow and thrive in a small space. It seems convenient but the end result is not promising. When seed sources are so hard to come by, the return on investment is not sufficient.

Here are two ways to go about planting seeds:

Plant seeds directly into the garden.

Seeds need contact with soil so that the initial rootlet that forms will access nutrition and water immediately. In a garden place where all grass roots and other vegetation have been cleared out, make a slight depression a couple of inches deep about a foot across and press 3 - 5 seeds in this depression. Seeds should not blow away or wash away in heavy rains in their recessed area. Flag the location for a year to mark where seeds have been planted. If no seedlings appear the second year, start again.

Plant seeds in new, or used, well cleaned, nursery pots.

Gather donations of, or purchase plastic nursery pots of all sizes, but no smaller than 5". Native plants need root space immediately and tiny pots do not provide the depth or hold sufficient moisture for native plant seeds to thrive. Fill pots about 3/4 of the way full with moistened potting soil. Dry soil repels water, pre-moistening allows water to flow through the soil and draw the roots down. Do not fill to the top so that seeds wash out in case of heavy rain. Place 3 seeds in each nursery pot, then sprinkle a light coating of soil on top to barely cover seeds and lightly press so that seeds are in contact with potting soil. Place pots outdoors in "native plant" conditions. Do not put on heated mats or window sills. Place pots outdoors in a south facing sunny area, ideally below trees - and surround seeded pots with larger pots to help protect the

nursery pots from wind or animals. I put screens over pots outdoors to keep squirrels out of the soil. Do not use pressed peat pots, or the peat filled disks that expand - if they are in a tray they hold water and allow mold to develop, if they are not in a tray and dry out, they wick water rapidly out of the soil. Plastic or terra cotta pots work best. Timing is the same, native plants may not germinate the first year so continue to protect the pots until the second year, until May or June and watch for seedlings. Placing pots in outdoor greenhouses is fine and offers better protection from wind, heavy rains and animals.

Because of the tenuous nature in getting plants to grow from seeds, which may not result in seedlings until a second year, I actually do not recommend giving seeds to novice gardeners. Especially when seeds are so difficult to find, clean, and process into pots or the soil, and then wait a year or more. Live plants, made available at the appropriate time to put in the ground, Earth Day is a good time, have a better chance of survival. Purchasing live plants is expensive and digging live plants is a No Go because cutting the tap root kills the plant. If you can get ahold of some local native seeds and make a planting in a public place and take care of it, you will generate your own seeds over time. This is actually the best thing you could do to show the community how to grow plants and what they look like. Ask for a volunteer crew to help you with this community project. Anyone spending time to help will have invested in something they want to succeed.

If you want to do something very affordable that brings the butterflies, plant dill and fennel. Swallowtail butterflies use parsley, dill and fennel plants as host plants and the caterpillars will absolutely decimate these herbs and create chrysalis for black and yellow swallowtail butterflies. There is a native Wild Parsley plant and a native parsley family plant, *Zizia Aurea* commonly called Golden Alexanders that local Swallowtails seek out.

Planting native plants should come with an agreement to tolerate all the insects that are part of a native plant ecosystem. People love swallowtails as much as Monarch butterflies, so some people will tolerate their plants being stripped by the caterpillars. (A neighbor once brought me a bucket of drowned swallowtail caterpillars that were eating her dill so she picked them off and threw them into a bucket of water - she wanted to know if I could identify them). I've found that there is a disconnect between wanting to "do something" for nature by planting native plants, and then wanting to kill all of the insects and caterpillars that use native plants as host plants. You could really help by educating people that an ecosystem is composed of all the living things (plants, people, insects, animals) and the non living things (soil conditions, sunlight, water) in an area. An ecosystem includes all of these things and if people will not tolerate spiders, bees, wasps, in their yards, perhaps they are not ready to include native plants to attract these living beings into their yard. Example, anyone who has their yard sprayed by a chemical company so that their non-native fescue lawn looks perfect, is probably not ready to plant native plants so that all the native insects they end up attracting are killed by either "broadleaf" sprays or insecticide sprays for mosquitos, grubs, wasps, etc. The disconnect between wanting to be part of nature and doing something for nature, and then not wanting to tolerate the wildlife they attract is very real. Your most difficult job is to convince people that the whole ecosystem requires all of the living and nonliving parts to be present.

I've been growing native plants for about 15 years. They present a very different challenge than annual plants due to delayed germination, and small size during the first growing year. After 2 years though, it's very well worth the effort.

There is a lot of material above and in the resources below that you can use, that have already been created, to make informational packages for people for your event and for every day. One thing I've been doing is creating a PDF of all materials I want to share, then make a QR code that accesses all of that information through the smart phones that everyone is carrying around with them. You can make single pages, with a QR code pasted into each page, available in a notebook, and people can go through your notebook and download the information that interests them by scanning the QR code. One page or many pages, it's up to you. QR codes help you get a lot of information out, saves your expense in printing on paper, and the information won't get lost with other papers. Google search to find out how to make a QR code and test it with several phones to make sure it is embedded properly (cut and pasted onto a page with information about what will be downloaded) and that it returns the information you collected.

Best of luck to you and let me know how your event goes. I didn't mean to write a long essay but your request is becoming more common - people need to know how to prepare and what to expect when they want to bring native plants to their community and neighbors. It's slow but it's worthwhile.