

Plant Selection and Acquisition

How Plants are selected

- Determine what species occur in the system.
- Evaluate potential successional pathways.
 - Categorize speed and ease of growth of important species.
 - Assess threat from invasives.
- Choose dominant and subordinate species to plant.
- Assess availability of plant materials.
 - Choose alternative species if necessary.

Plant material

- Seeds
- Nursery stock
- Salvage
- Direct transfer
- General transfer
 - Prairie hay
 - Soil

Seeds

- Seeds may be collected.
 - Collecting seeds yourself gives you control over provenance.
 - If you collect to grow seeds out, you may grow them yourself or contract with custom growers.
- Seeds may be purchased.
 - Purchased seeds can be expensive.
 - Seeds produced in increase-beds may not be genetically diverse.

Plant material

Seeds

- Seed collection guidelines:
 - Use adequate number of donor plants
 - Sample equally among donor plants
 - Set a minimum spacing between donors
 - Match donor site with restoration site
 - Collect from whole breeding range
 - Collect from all morphologies
 - Avoid suspect plants
 - Protect donor population



Plant material

Seeds

- What do you do with seeds once you have them?
- Plant them.
- Store them.

Plant material

Seeds

- If you store them:
 - Dry them if freshly collected.
 - For over-winter storage, seeds may be air-dried
 - Long-term storage, dehydrate with heat or dried air
 - Seeds with less than 4% moisture may be frozen

Plant material

Nursery stock

- Seeds, cuttings, divisions are planted in flats or in beds.
 - Seedlings or successful transplants are upsized to pots or modular containers.
 - Plants may be grown in greenhouse, then nursery.

Nursery stock

- Most common way to get nursery stock is to buy it from a nursery.
 - Nurseries have a limited selection
 - They sell what they can make money on
 - They run out of the good stuff fast
- Or, you may grow it out yourself.
 - You are usually only limited by your ability to get seeds to germinate and plants to grow.

Zamia integrifolia



Nursery stock

- Liners are small plants.
- Container plants are upsized as they grow.
- Ball and burlap are field dug and planted.
- Bare root plants are harvested after leaf drop.
- Cuttings may be rooted under mist then potted.





Plant material

Salvage

- Salvage is common from construction sites:
 - Highways
 - New construction
- Get permission or permit.
- Do not salvage from intact systems under no threat.
- There are county-sanctioned plant salvage programs.



Direct transfer of identified species

- Live stakes
 - Works well for a few species
- Sod transfer
 - Usually gets grasses
 - May leave deep-rooted bulbs
 - Excludes woody plants
- Pull-ups
 - Like live stakes, but with roots
- Bio-engineering



General transfer of seed-bearing materials

- Prairie hay
- Soil
 - Transfer
 - Inoculation
- Both methods bring weeds along with desirable species.



