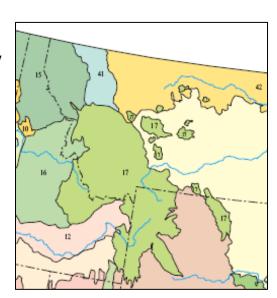
# Seed Collection Standards and Protocol:

There are two main standards that must be adhered to when collecting native seed that is to be used for restoration and/or rehabilitation. These two standards are commonly referred to as genetically appropriate and genetically diverse. Genetically appropriate, in this sense, is commonly understood to mean that the seeds used in a given project were collected or increased using materials that were originally collected from plants that are adapted to local conditions. Genetically diverse is commonly understood to mean that seeds were collected in a way that ensures a representative sample of the genetic material within any given population is retained. It is not appropriate, nor ethical, to collect large quantities of seed from a single plant population as this leads to both genetic erosion in your project, and can do significant damage to the wild population from which you are collecting. Native Ideals collects from many well spaced individuals from multiple populations.

In order to meet both of these genetic standards Native Ideals has developed and adheres to these seed collection protocols. By doing so, we believe that we will be able to maintain the quality of our own product. At the same time, we will not be degrading the genetic diversity of wild populations through over collection of naturally occurring populations or through the outplanting of genetically eroded materials in restoration projects within the Northern Rocky Mountains.

## **Gentetically Appropriate**

Native Ideals Seed Company believes that using locally adapted plant materials for the restoration and/or rehabilitation of natural areas, research, xeriscaping, seed increase and native landscaping is far superior to the use of cultivars that are grown and developed using plant materials that were not collected from similar conditions (i.e. habitat, moisture, elevation, etc.). In order to provide the most locally adapted product, we have narrowed the emphasis of our wholesale production to xeric forbs native to the Northern Rocky Mountains. Our seed increase plots will be established using seed collected within the states and provinces of Montana, Idaho, British Columbia and Alberta. More specifically, all of our source sites will be within the level III ecoregions of 15,



**Level III Ecoregions** 

16, 17, 41 and 42 (Northern Rockies, Idaho Batholith, Middle Rockies, Canadian Rockies and the Northwestern Glaciated Plains). Records for all collections of source material will be made available to any client or potential client upon request in the form of our seed source summary sheet. All contract seed collections will only occur within our previously designated area of focus, and will be delivered to the client with all collection records. All contracted seed increase/grow-out will be limited to species occurring naturally within the designated area of

focus. Prior to grow-out of a species, we will require the client to provide us with as much collection data related to its source as possible.

#### **Genetically Diverse**

Native Ideals believes that maintaining the genetic diversity within a species is vital to the production of quality native plant seeds. In order to prevent our source materials from being too narrow and prevent genetic erosion from occurring within our seed increase plots, Native Ideals has set a minimum number of collection sites, individuals and distance between sites to be collected. Source collections made for wholesale seed increase plots will be made up of a minimum of fifty (50) parent individuals from four sites separated from each other by at least two (2) miles. Within a given site, seeds will be collected from clusters of five (5) individuals separated by at least 25 feet. In order to preserve the integrity of collection sites and prevent over collecting, Native Ideals will only collect from 1 of every 10 plants present. Meaning a maximum of 50 individuals could be collected from a site if it contained 500 individuals. These collection data will be reflected within the seed source summary sheet under genetic base (e.g. 6 sites, 53 individuals would be shown as 6-53). All contract seed collections will follow the same protocol, unless otherwise specified by the client and agreed upon by Native Ideals Seed Company.

### **Site Collection Data Sheet**

In order to ensure that accurate record is kept of every collection, site collection data sheets will be filled out at each collection site. Data recorded for each site will include:

- Genus species
- Date of collection
- Site name
- County and State of collection
- Elevation
- Number of individuals collected
- Ecoregions

- Common name
- Name of collector(s)
- Site Description
- GPS coordinates (UTM's)
- Estimated number of individuals at site
- Distance between individuals

#### **Seed Source Summary Sheet**

All site collection data sheets for a given increase species will be compiled in a species' seed source summary sheet. Information included for each species will be:

- Genus species
- Date range of collections
- Elevation range
- Ecoregion(s)

- Common name
- Name of collector(s)
- Genetic base (# of sites, # of individuals)