A QUICK LOOK AT REVEGETATION FOR DUST CONTROL:

"Revegetation" means getting plants to grow where they have been destroyed or died out.

Revegetation is certainly not the easiest way to control dust quickly. Dusty soils may have been pulverized and may need help before plants can grow on them. But, revegetation offers the benefits of living with healthy tundra or woodland close by and perhaps with even new local food sources.

Revegetation is frequently required after mining or industrial development activities, so research exists about what works best.

Successful revegetation projects use our understanding of native plants, increase our understanding of our landscapes, and can improve our capacity to grow food locally.

Some options for what to plant in rural Alaska:

- native Alaska species which have been specifically bred for revegetation.
- food crops (These contribute to community resilience.)
- local native species (It's a big state, and seed from across the state may not work as well.)
- culturally important species
- ornamentals (flowers)

Best one-stop source of information:

Alaska Plant Materials Center (DNR)

- Alaska Revegetation Manual
- Directory of Alaska Native Plant Sources

The soil conditioning needed will depend on the site and needs of the species to be planted. It may include:

- Scarification (roughing up ground) to reduce soil compaction
- Additions of soil organic matter
- Erosion control or soil stabilization
- Watering
- Fertilization

Characteristics of the kinds of plants to try first:

- Weedy plants, already adapted to disturbed habitats.
- Colonizing plants, typically the first species present after disturbance; they can use poor soil.
- Clonal plants, which can spread widely from a single planting. Many beach species are clonal.
- Grasses. These are frequently used first because their fibrous roots stabilize soil.

Recommended species:

See the **Alaska Revegetation Manual,** Alaska DNR Department of Agriculture, Plant Materials Center, (*link*). This manual contains regionally-based recommendations, and much more.

Available seed, recommended seed:

- Alaska Plant Materials Center (DNR)
- Directory of Alaska Native Plant Sources http://www.dnr.state.ak.us/ag/nativedirectory.htm
- Local plants can be transplanted also, eliminating the need for seed.

Species to avoid:

Species identified as invasive alien plant species or Alaska noxious species.

Alaska Committee for Noxious and Invasive Plants Management,
http://www.uaf.edu/ces/cnipm/

State of Alaska Prohibited and Restricted Noxious Weeds
http://plants.alaska.gov/publications/pdf/NOXIOUSWEEDS.pdf

Some sources of research into revegetation in Alaska:

- Alaska Plant Materials Center (DNR)
- Denali National Park (and other parks)
- Mining reclamation studies
- Pipeline and oil industry reclamation studies
- School of Natural Resources and Agricultural Sciences, UAF

Other potential resources:

- Alaska Dept. of Natural Resources
- Georgeson Botanical Garden, UAF
- UAF School of Natural Resources & Agricultural Sciences (SNRAS)
- **Marston Garden Project**, available to villages in western Alaska. It supplies participating villages a community rototiller, seed potatoes, fertilizer, seeds, and ongoing education.
- BLM: BLM is partnering with the Alaska Plant Material Center (PMC) to increase the availability of native plants for restoration.
- Alaska Natural Heritage Program
- Alaska Native Plant Society

A Revegetation Manual For Alaska
http://dnr.alaska.gov/ag/RevegManual.pdf

Directory of Alaska Native Plant Sources
http://dnr.alaska.gov/ag/nativedirectory.htm

Alaska Coastal Revegetation & Erosion Control Guide
http://plants.alaska.gov/reveg/

Contact if interested:
Cindy Williams
Division of Air Quality, ANPMS, Alaska DEC
cynthia.williams@alaska.gov