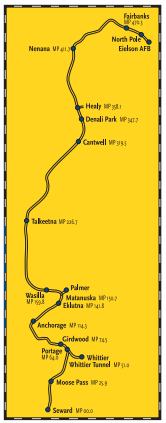


ALASKA RAILROAD

Track & Yard Vegetation Management: University-led Herbicide Research Project

The Alaska Railroad (ARRC) commissioned the University of Alaska Fairbanks (UAF) to conduct researach on herbicide behavior in Alaska's environment. Scientists from the Alaska University Transportation Center (AUTC) and researchers from the UAF Water & Environmental Research Center are involved.

Scope and Purpose

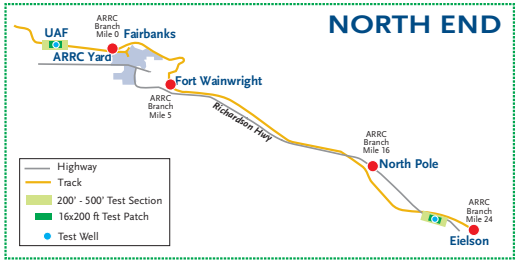
- **Chemicals Studied:** AquaMaster® general use herbicide (glyphosate); Oust® Extra professional use herbicide (sulfometuron methyl and metsulfuron methyl); AgriDex® nonionic surfactant used to spread the herbicide.
- **Size and Location:** less than three acres total at the north and south ends of the railroad to capture the spectrum of climate along railroad operating property.
  - **South End:** Seward Yard and along the track between Seward and Portage.
  - **North End:** Along the track adjacent to UAF Experimental Farm near the Yard and along the Eielson Branch.
- **Year One:** South End - Summer 2008 to Summer 2009; **Year Two:** North End - Summer 2009 to Summer 2010.

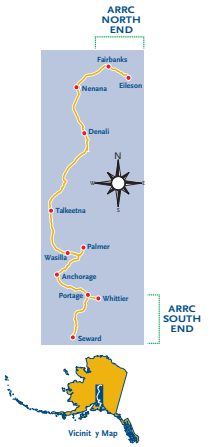
First-Year Findings (South End)

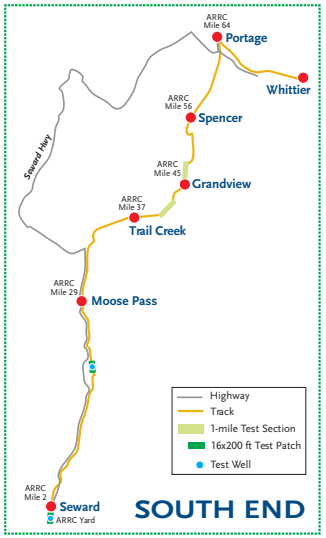
- Herbicides behave similarly to how they behave in other climate and environments, enabling comparison to other locations where herbicides have been effectively and safely used.
- Samples from monitoring wells and soil samples indicate that the glyphosate degrades rapidly in Alaskan soil and does not migrate significantly in the soil.

Cost and Funding

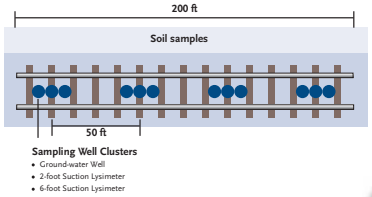
- The cost is $400,000. ARRC is funding half ($200,000) and an AUTC matching grant is funding the other half.







Herbicide study areas on the South and North end of the Alaska Railroad.



Test patches include several sampling wells and lysimeters, which collect water from unsaturated soil in order to measure soluable chemicals in the water.