

Mountain Home Air Force Base  
Windbreak Installation and Demonstration  
1997 Progress  
Loren St. John, Plant Materials Team Leader

The Mountain Home Air Force Base and the Aberdeen Plant Materials Center have worked cooperatively since 1990 testing woody plant material for use in windbreaks. Based upon the cooperative work and the technical expertise from the Plant Materials Center, the Air Force requested assistance with the planning and installation of windbreaks at the Air Force Base. A reimbursable, cooperative agreement was developed between the Air Force and the Plant Materials Center in 1995 to install approximately 53,880 running feet of windbreak over a 4 year period, beginning in 1996.

In early December, 1996 site layout and planning began for the second year of windbreak installation. Three separate sites were planned; the Main Gate Extension, Skeet Range and FAMCAMP. Figure 1 shows the sites planted in 1996 and 1997. The Air Force prepared the sites by removing rock, sagebrush, and disking.

The Air Force chose to have installed 5 row windbreaks with the following species listed in order from the windward to the lee-ward side: Siberian peashrub, Rocky Mountain Juniper, Robust poplar, Austrian pine and 'Shuberts' chokecherry. This was the same design used in 1996. They also decided to have the Plant Materials Center install weed barrier to help conserve moisture and control weeds. The Air Force contracted with a irrigation company to have the drip irrigation system installed.

On March 17, 1997 planting of the windbreaks and installation of weed barrier began. 11,960 running feet of windbreak was completely installed by March 19. Due to contracting problems, the drip system installation was delayed until early May. The weed barrier and rainfall sustained the plants until the drip system was functional.

The Plant Materials Center Crew, NRCS field office and Air Force personnel worked together to replace dead plants in the 1996 windbreaks following installation of the 1997 windbreaks. Approximately 460 plants were replaced.

Because of the severe damage by rodents at the Hospital Site in 1996, it was decided to replace Robust Poplar with Austrian Pine and Shuberts Chokecherry with Rocky Mountain Juniper. Rodent damage during 1997 was virtually non-existent on all plantings and growth and vigor of the trees and shrubs was excellent during the 1997 growing season.

On October 28, 1997 the windbreaks were evaluated and the following table summarizes survival rate percentages for each species at each site:

<u>Site</u>	<u>Siberian Peashrub</u>	<u>Rocky Mtn. Juniper</u>	<u>Robust Poplar</u>	<u>Austrian Pine</u>	<u>Shuberts Chokecherry</u>
1996 plantings					
Main Gate	95	99	94	100	91
Hospital	92	99	NA	96	NA
Shoppette	98	100	89	100	98
1997 plantings					
Main Gate Ext.	97	98	96	92	94
Skeet Range	87	100	97	97	96
FAMCAMP	86	97	98	94	98

The survival rates were significantly improved over the previous year. There was much concern because of rodent damage in 1996 and a poison baiting program was developed and implemented by the Air Force to reduce rodent damage.

The Air Force is encouraged by the performance of the windbreaks during 1997 and planning is underway to install approximately 16,000 running feet in March, 1998.

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