

Sherburne County Community Gravel Bed

EAB Preparedness
Project



Project Summary

The Sherburne SWCD constructed a gravel tree bed in the spring of 2013. The gravel tree bed nursery is nursed to hold bare root trees from spring until fall planting. The purpose of this hold time is not to grow the trees; rather to enhance their root systems.

Gravel beds are not complex and have been used in the nursery trade for decades. It is simply contained hydrated pea gravel in which bare root trees are temporarily held. The key is regular and adequate irrigation, which is fairly easy to achieve with automatic timers and soaker hoses.

The gravel bed trees will be planted in the cities of Becker, Big Lake, Elk River, Princeton and Zimmerman. Each city will receive 10 trees this year.

The SWCD will continue to offer the gravel bed service for all the communities in Sherburne County on an annual basis. The cost to the cities will include the trees and an equal share in the plot rental fee.

The gravel bed capacity is 140 trees, which is enough room to hold 25-30 trees per community.

The construction of this gravel bed was possible with donations from Plaisted's in Elk River, Country Lumber in Becker, True Value Hardware in Becker, Brock White in Elk River, volunteer labor and private donations.



Staff installing irrigation hose. Irrigation is run 3x per day on 3 different zones for a duration of 20 minutes



Gravel bed trees just planted - ready to leaf out. Trees are held in hydrated pea gravel for approx. 16 weeks

Project Details

Date Installed 04/17/13
 Bed Length 40 ft.
 Bed Width 10 ft.
 Bed Capacity..... 140 trees

Project Funding

Private Donations\$2,575
 Local Business Donations.....\$1,367
 Total Cost of Materials.....\$3,942

Project Partners

City of Becker
 City of Big Lake
 City of Elk River
 City of Princeton
 City of Zimmerman
 Plant Materials Site
 DNR / U of M

Project Summary Continued

The benefits of gravel bed held trees are numerous.

Cost Savings – The bare root stock used in gravel beds is equal in stem diameter to potted or balled & burlap (B&B) – yet it is 50 – 75% less expensive!

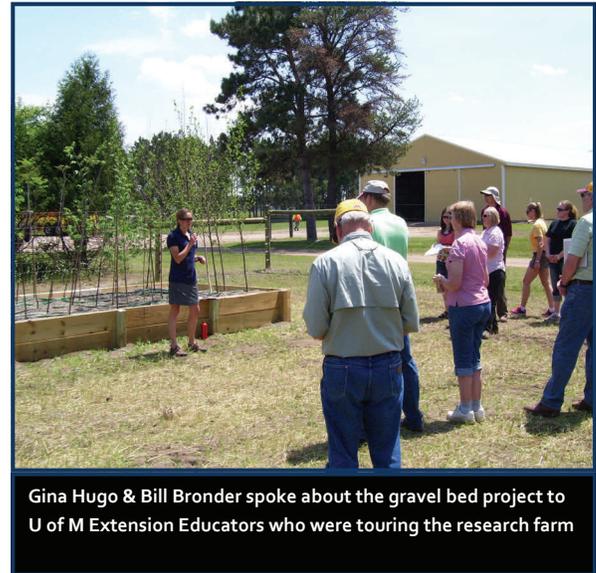
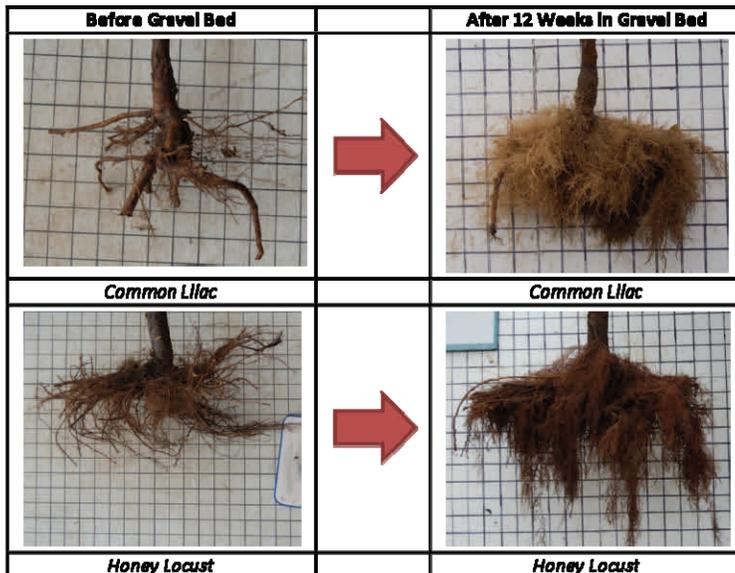
Increased Survival – The profusion of fibrous roots greatly increases the trees capacity to absorb water and nutrients. When a typical tree is transplanted the majority of energy is expended to restore lost roots, leaving little to no energy for fighting off pests and pathogens. The enhanced root systems and consequent increase in water and nutrient absorption makes the tree much more resilient.

Planting Times – To take advantage of the cost savings that bare root stock offers limits planting time to spring. What follows is typically a bit of rain or flooding, then drought summer conditions that are very stressful for a newly transplanted tree. Fall planting allows establishment to occur in cooler, more favorable conditions.

Community Involvement – Being bare root, trees are light and easy to handle – they are very conducive to volunteer planting. This creates opportunities for community residents to be part of the process – resulting in social capital, and a healthy sense of community pride and ownership.

Better species availability – The variety of species available as bare root stock is far wider than the choices potted or B&B offer; and for a fraction of the price.

Visible Root Structure – a very common problem in many landscape trees is a condition known as stem girdling roots. The best time to reverse a problem root is before it is planted – but difficult to do on potted or B&B. The accessibility to the root systems allows for easy quick correction with a simple pruning snip.



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The Sherburne County Soil & Water Conservation District is dedicated to working directly with landowners and agencies in order to promote the wise and sustainable use of our land and water related resources to educate and inform the public about these uses; to help solve the resource problems within the District and to serve as a county wide natural resource information and referral center.