Spring Sapling Harvest Season in Afghanistan

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Positive Observations/Soil Conditions

Nursery Soil Conditions:
1. Soil Temp 38-40 F
2. Soil Moisture 75% of Field Capacity
Positive Observations/Work Crews

1. Ample quantities of workers
2. Seemed to enjoy their work
Positive Observations/Leadership

Experienced, dedicated:
1. Administrators
2. Nursery Managers
3. Foremen
4. Laborers
5. Advisors
Positive Observations/Transportation

Transportation to move harvested saplings to the planting site.
Positive Observations

• Ample quantities of saplings for spring plantings projects
• Saplings were dormant at harvest
• Efforts made to minimize harvest season length
• Harvest began as soon as snow was off nursery ground
**Areas Needing Improvement:**

**Protect Saplings’ Roots from Drying Between Harvest and Planting**

Use tarps or soil to protect roots from drying. Roots left exposed for more than 1 minute will dry out. Loss of small roots will reduce sapling survival.
Area Needing Improvement:
Ensure Root Length Minimum of 30 cm

Larger/longer root mass will increase survival by:
1. Greater uptake of nutrients
2. Greater uptake of moisture
3. Withstand periods of drying
4. Anchor sapling
Areas Needing Improvement:
Remove Polybags When Transplanting

Production in Polybags No More Than 2 Years:
1. Restrict root development
2. Cause spiraling of roots
3. Decrease survival
Areas Needing Improvement:
Modify Digging Tools for Greater Root Mass

Standard shovels are designed: shallow digging and cutting

Maddocks are used to cut roots
Areas Needing Improvement: Modify Digging Tools for Greater Root Mass

Heavy-bladed garden forks will harvest saplings with limited cutting of roots.

Narrow, long-bladed shovels (45 cm) will dig deeper than standard shovel.
Areas Needing Improvement
Grow the Right Sapling for the Right Place

When growing saplings, consider the sites they will be planted:
1. Aspect (north is suitable for conifers)
2. Soils (Calcium soil are suitable for deciduous)
3. Urban areas (larger saplings are suitable)
4. Rural areas (smaller seedlings are suitable)
Sapling Harvest Summary: Quality Control

Establish Minimum Standards
  Sapling shoot length
  Sapling root length
  Exposure time period for roots

Provide Training Prior to Practice
  You demonstrate and explain
  They demonstrate and you explain
  They demonstrate and explain

Have the Right Tools
  Long-bladed shovels
  Spade Forks

Enforce the Standards