

Spring Sapling Sowing/Propagation Season In Afghanistan



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FROM THE AMERICAN PEOPLE

Guzargah Nursery



Paghman Nursery



Dehmurah Khan Nursery

Positive Observations/Leadership

Dedicated, knowledgeable:

- Administrators
- Nursery managers
- Nursery foremen
- Advisors



Positive Observations/Site Preparation



**Mechanical site preparation/
Deep plowing**

**Agropyron seed production in
Nursery seedbeds**





Seed orchards being planted on Nursery grounds



Seed storage facility

Positive Observations/Seed



Seed collection, processing and storage training

Positive Observations/Sapling Inventory



Inventory of native Afghan saplings for 2008 and beyond look promising

**Every effort is being made to meet
the contracted quantities**



Positive Observations/Seeding



**Species with short/no
stratification are being sown in
the spring (Ulmus)**

**Species with long stratification are
being sown in the fall (Cercis)**



Positive Observations/Transplanting

Conifer transplanting done in the fall



Polybag conifers transplanted

Positive Observations/Populus production



Second year shoot growth used for producing cuttings

Positive Observations/Polybag Production



- Germination
- Growth and Development
- Transplanting

Areas Needing Improvement: **Ensure Adequate Sapling Root Development**



Transplant root length 20 cm

Prepare seedbeds to depth of 30 cm for root development, drainage



Areas Needing Improvement: Match the Nursery to the Sapling Crop



Deciduous:

- **Finer soils**
- **Can tolerate some flooding**



Conifers:

- **Well-drained, coarse soils**
- **Slightly acidic soil**



Cold Frames:

- **High-maintenance (irrigation, preparation, harvest)**
- **Lacking plastic/glass covering**

Areas Needing Improvement

Determine Effectiveness of Nursery Operations

- 1. Determine Provincial Sapling Production Goals**
- 2. Identify species and age-classes**
- 3. Identify stock type needs (bareroot or polybag)**
- 4. Determine individual nursery production targets**
- 5. Re-direct inefficient nurseries**
- 6. Limited funding**



Areas Needing Improvement Provide Training



Short-Term: Workshops on techniques
Long-Term: Detail Assignments on technology

Sowing/Propagation Summary: Quality Control

Establish annual calendar of events
Time-Critical

Establish Minimum Standards

Production goals

Shoot height (minimum/maximum)

Root length (minimum)

Sapling diameter at harvest (minimum/maximum)

Cultivation depths

Provide Training Prior to Practice

You demonstrate and explain

They demonstrate, you explain

They demonstrate and explain

Have Right Tools

Deep cultivators for site preparation (>30 cm)

Seed to meet production goals

Enforce Standards

وزارت زراعت مالداری و مواد غذایی
ریاست عمومی جنگل‌ات و علف‌چهارها

نهال مشبه به طفل بوده
نیاز به حفاظت و پرورش دارد.

(USAID)