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Planting and Pruning Instructions for Selectively Bred Robinia pseudoacacia in Industrial Wood Plantations

Planting Instructions for Robinia pseudoacacia 'Turbo' and 'Turbo Obelisk'

Planting correctly is essential for the healthy growth and maintenance of your plantation. Follow these clear and concise instructions to ensure successful planting and establishment.

Planting Spacing

- Correct spacing for proper maintenance & facilitates cultivation between rows.
    - Generally, for producing high quality timber we recommend wide planting spacing of 3x3m or 2x2m layouts.
- **Guidance:** Refer to specific plantation layouts tailored to your intended use

Time of Planting

- Planting should be completed usually before the end of April (in Hungary) to ensure optimal establishment.

Planting and the use of marking poles after cutting back to ground level.

Planting Instructions

1. **Preparation:**
    a. Use seedlings or saplings for planting.
2. **Planting Method:**
    a. Dig a hole with a width and depth roughly the size of a shovel.
    b. Ensure **5-10 cm of space** remains in the hole beside the roots.
    c. Place the seedling/sapling centrally and vertically in the hole.
3. **Filling and Positioning:**
    a. Fill the hole halfway with soil, then gently lift the seedling to ensure the roots are naturally positioned downwards.
    b. Compact the soil moderately, fill the rest of the hole, and compact again.
    c. The root collar should sit **about 3 cm below the soil surface**.
4. **Final Steps:**
    a. Loosely cover the compacted area with additional soil.
    b. Confirm stability by testing if the seedling stays firmly planted when held with two fingers.
    c. **Cut Back:** Trim the seedling/sapling **1 cm below the soil surface** immediately after planting.
5. **Watering:**
    a. Water the planted material once, especially if the soil is dry, to encourage root establishment.

Post-Planting Care

Industrial Pole Wood and Roundwood Production:

- **Cutting Competitive Shoots:**
    - Conduct this in the **second half of July** to encourage desired growth.

Short Rotation Coppice (SRC) Biomass Plantations:

- Cutting competitive shoots is **not required** for biomass plantations.

By following these steps, you'll ensure a strong start for your plantation, maximizing growth potential and productivity. Proper planting and aftercare are key to achieving long-term success in your forestry endeavors.

Pruning Instructions for Robinia pseudoacacia 'Turbo' and 'Turbo Obelisk'

Why Pruning Matters

Pruning plays a critical role in industrial Robinia pseudoacacia plantations. It directly impacts wood quality by minimizing defects such as knots, ensuring the timber meets industrial standards. Proper pruning also supports the long-term health and growth of the trees, maximizing yields and profitability while contributing to sustainable forestry practices.

Without pruning - forest-like Robinia pseudoacacia population and its wood yield

Key Goals of Pruning

1. **Enhance Wood Quality:** Create a thick, knot-free core in the lower trunk and minimize branch-related defects in the middle and upper sections.
2. **Optimize Tree Shape:** Correct forking, crowding, and other growth deformities.
3. **Increase Industrial Value:** Ensure timber is suitable for high-demand uses like sawn lumber, debarked wood, and durable column materials.

Timing for Pruning

- **Optimal Period:** Between January and the start of new growth, ideally during the waning moon phases.
- **Avoid Green Pruning:** Pruning during active growth increases the risk of fungal infections.
- **Alternative Period:** Approximately two months after leaf fall until the new year.

Step-by-Step Pruning Instructions

Click to view on Youtube: Video - Planting, pruning and maintenance - Turbo Obelisk

1. Initial Pruning (Years 1-7)

- **Frequency:** Annually.
- **Goals:**
  - Remove competing leader shoots to promote monopodial growth.
  - Thin dense crowns, reducing crown density from 70% to 50% gradually.
  - Shape the trunk to establish a defect-free core in the lower third.
- **Techniques:**
  - Cut branches near the collar without damaging the trunk.
  - Cut near the main trunk and avoid leaving “coat hangers” sticking out
  - For thick branches, use incremental cuts to prevent splitting.
  - Treat cuts over 2 cm in diameter with wood preservatives (Acrylic acid – ester- styrene copolyme

Wood preservatives (Hungarian brand, called FAGÉL made of Acrylic acid – ester- styrene copolymer)

2. Maintenance Pruning (After Year 7)

- **Frequency:** Every 2-3 years.
- **Goals:**
  - Maintain trunk cleanliness and remove large lateral branches.
  - Address excessive lateral crown growth cautiously to avoid over-thinning.
  - For column wood production, cease pruning after 12 years; for log production, stop after 18-20 years.
- **Techniques:**
  - Monitor for "head-heavy" leader shoots, which indicate overpruning.
  - Use careful, staged pruning for crowding-prone varieties to avoid tip breakage.

Pruning using extendable pole pruning shear and pole saw, incl. the use of fruit-picking ladders

Best Practices for Pruning

- **Tools:** Use manual pruning shears, pole saws, and loppers for precision. For heights above 5.5 meters, use aerial work platforms or fruit-picking ladders.
- **Pruning Height:** Up to 5.5 meters manually; extendable to 12 meters with appropriate equipment.
- **Wound Management:**
    - Keep cuts under 4-5 cm in diameter for faster healing.
    - Apply wood preservatives to larger cuts to prevent decay.
- **Crown Maintenance:**
    - Avoid over-thinning beyond 50% crown density.
    - Shorten scaffold branches cautiously to control lateral growth.

Pruning using long-reach telescopic pruning shears

Signs of Overpruning

- Formation of "head-heavy" leader shoots during spring growth.
- Weak, prone-to-breakage shoots that require corrective pruning.

Summary

Pruning selectively bred Robinia pseudoacacia is essential for achieving high-quality industrial timber and sustaining long-term plantation productivity. Following these guidelines ensures healthy growth, minimizes defects, and enhances profitability, making pruning an indispensable practice in plantation forestry.

Well pruned Turbo Obelisk plantation