



Getting Started with Industrial Hemp Cultivation for Fibre

Introduction

This guide is designed to help new farmers understand the essential steps in cultivating **industrial hemp for fibre/biomass production**. Industrial hemp is a fast-growing, environmentally friendly crop that thrives under the right conditions with proper planning and care.

1. Site Selection & Soil Preparation

Ideal Soil:

- Well-drained loamy soil with good fertility
- pH range between **6.0 and 7.5**
- Avoid heavy clay or waterlogged soils

Preparation Steps:

- **Clear** the land of any weeds or previous crops.
- **Plough** the soil to a depth of 15–20 cm.
- **Disc harrow** or rotovate to break up clumps and level the surface.
- **Test the soil** using a basic soil test kit to check for nutrient levels and pH.
- **Apply lime** if the pH is below 6.0 to raise acidity to optimal levels.

2. Compost and Organic Matter

Purpose:

Improve soil structure, microbial life, and water retention.

Recommended:

- Apply **4 tonnes of compost per hectare** before planting.
- Use **well-decomposed organic compost** from plant or animal waste.
- Mix compost into the top 15–20 cm of soil during final tilling.

3. Fertiliser Application

Hemp Fibre Needs:

- Moderate nitrogen
- High potassium
- Moderate phosphorus

General Guideline (per hectare):

- **Nitrogen (N):** 80–120 kg
- **Phosphorus (P):** 40–50 kg
- **Potassium (K):** 60–80 kg

Recommended Fertiliser:

- Use a **balanced fertiliser mix (e.g. 5:10:10 NPK)** before planting.
- Apply remaining nitrogen **as a top dressing** 3–4 weeks after emergence.

4. Planting the Seeds

Seed Type:

Use **certified industrial hemp seed** for fibre with THC content <0.2%.

Planting Rate:

- **8 - 10 kg of seed per hectare**
- Seed spacing: 15–20 cm within rows, with 30–40 cm between rows
- Bulk seeds can be sprayed using a seed distributor.
- For fibre: aim for **dense planting** to promote tall, slender stalks

Planting Method:

- Use a seed drill or hand broadcasting followed by light raking.
- Plant at **1.5–2 cm depth** in moist soil.
- **Best time to plant:** After the last frost, when soil temperature is **above 10°C**

5. Watering Requirements

Hemp needs:

- **300,000 to 500,000 litres of water per hectare per season**
- Avoid overwatering to prevent root diseases

Irrigation Tips:

- Use **drip irrigation** or **drip sprinklers** if rainfall is insufficient.
- Water consistently, especially during the first 6 weeks of growth.
- Ensure good drainage to prevent standing water.

6. Maintenance and Weed Control

- Hemp grows quickly and shades out most weeds.
- **Weeding is most critical** in the first 3–4 weeks.
- Avoid herbicides unless absolutely necessary and approved for hemp.

7. Harvesting for Fibre

- Harvest **90 days after planting**, when stalks begin to flower.
- Use a **sickle mower or reaper binder** for large areas.

- Stalks should be left in the field to **ret (natural breakdown)** for 3–4 weeks before baling.

Final Tips for Success

- Keep records of everything (costs, weather, growth rates)
- Network with other hemp farmers or co-ops
- Confirm all **permits/licenses** are in place before planting
- Consider your **market and buyer** before harvest time

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