

Industrial Hemp Production Process Short Summary

1 Introduction

There are three main elements to industrial hemp production and the production of cannabidiol (CBD):

- Seeds and genetics
- Farming
- Extraction

All three aspects are integral to a full production process: from seed to soil to oil.

2 Seeds and Genetics

Hemp grows all over the world in all types of environment, but no matter where you are, seeds and their genetics are important factors in growing hemp. Seed strains vary in cannabinoid, tetrahydrocannabinol, seed production, and fiber production. Choosing the correct strain for the intended outcome is vital and the particular plant that works in your climate and soil conditions will vary. Testing needs to be carried out to see which strains will thrive in your environment. Greenhouses or indoor growing facilities are used to produce high-quality seed.



3 Farming

3.1 Field Preparation

Field preparation is another important aspects of producing a healthy, flowerful crop. The better you can prepare your fields before you plant, the better the hemp crop will turn out. Hemp needs loose porous soil and if the soil is too compact the roots will suffocate.

The ground needs to be broken up, disced and fertilized and the beds shaped.



3.2 Irrigation

Hemp needs to be irrigated. Drip systems allow you to control exactly how much water is released onto the field at any given moment, letting you control how and when the plant feeds.

3.3 Planting

Planting seed at the correct depth is a critical part of growing hemp. If the seed is planted too deep, it will not sprout; if the seed is planted too shallow, it could die from exposure. Most conventional air seeders will work to set the appropriate seed depth with little modification.



3.4 Growing

Once the plants are growing in the fields you need to manage their growth and implement a proper nutrient regiment.



3.5 Harvest

Harvest is where all the hard work of the season comes to an end. Inclement weather can make harvest difficult at times, so ensuring you are able to harvest properly and efficiently is essential. Also note that harvesting techniques are still evolving, making the process a work in progress.



3.6 Drying

Once harvested and baled, the hemp plants need to be dried. They can be dried in the field or using drying equipment, such as a drying floor. Once dry, the hemp is stored until it can pass through the sorting system.

3.7 Processing / Storage

Processing the material into a usable, extractable form is essential in producing high quality CBD oil. Once the biomass is dry, it needs to be processed to remove unwanted stems and seeds, and leave only extractable material which is then stored in super sacks until the biomass can be passed through the extraction process.



4 Extraction

CBD is extracted from the biomass using specialized equipment which uses either liquid CO₂ or ethanol as its extraction medium. The extracted CBD is put into containers and labelled, making it ready for transport and sale.