Irrigating Industrial Hemp

Opening the door to a new crop

Eighty years after the industrial hemp industry was practically banned, legislation is opening doors to produce the plant. A growing number of states and countries are giving growers the chance to explore the potential of this cash crop.

Because production of industrial hemp is still so new, little is known about how to produce the best yields, but Valley® Irrigation has done some research to help producers be successful:

- Hemp requires 20-30 inches (508-762 mm) of water during the growing season, depending on the region and soil composition
- Precise water delivery is necessary
- Hemp is sensitive to both drought and over-watering – heavy rain can kill a crop
- It needs fertile, well-drained soil
- Growers should consider soil moisture monitoring

Valley is working with industrial hemp growers to provide proper water application during every stage of growth. Pivot irrigation technology will be key to this process. For example, Valley Scheduling™ is an advanced irrigation management software that gathers data about crop development, soil type, weather, soil moisture and more. Valley Scheduling already has a hemp model in place. Learn more at valleyirrigation.com/valley-scheduling.

For added information and insurance, Valley Insights™ uses imagery and artificial intelligence to identify plant stress and proactively alert the irrigator to take proper action. These technologies can save crops by notifying growers about potential problems before they become serious issues. See more about Valley Insights* at valleyirrigation.com/valley-insights.

Both Valley Scheduling and Valley Insights can be used in conjunction with variable rate irrigation (VRI) to ensure each area has the right amount of water at the right time, even in fields with diverse terrain and soil types.

* Valley Insights is in limited release, available only in select regions.

Contact your Valley dealer to learn more about how irrigation can help you produce a healthy industrial hemp crop.

Industrial Hemp

Types of industrial hemp and their water needs

There are several varieties of industrial hemp, and each of them have different growing and irrigation requirements.

HEMP FOR CBD OIL

These plants are hybrids of industrial hemp and marijuana plants, and are grown horticulturally rather than agriculturally. They can produce high levels of CBD oil with low levels of THC. Plants must be transplanted in dry soil and demand careful irrigation for the first 30 days. They need about a gallon per week per plant during the flowering stage.*

Josh Barrett of COMI Farms, Inc., in Michigan says many people assume these plants will grow well without irrigation, but it is a gamble. His company makes irrigation recommendations based on soil, climate and plant characteristics. According to Barrett, the timing of irrigation and the amount of applied water are both crucial, and in his five years of experience with growing hemp for CBD oil, he has never had a season when irrigation wasn't necessary. He says irrigation is a good insurance policy that will pay for itself tenfold within one season.

GRAIN AND BIOMASS VARIETIES

Hemp grains can be a source of protein, oil, fatty acid and fiber. These varieties grow four to six feet tall, much like milo or sorghum. Biomass, or fiber, varieties are excellent sources of material for clothes, rope, paper and building materials. Hemp for fiber grows 12 to 14 feet (3.6-4.2 m) high and is cut at the beginning of flowering. A few varieties are dual-purpose, which allows a grain harvest and then fiber, though they tend to get less yield for both products.

Bryan Parr of Legacy Hemp in Wisconsin specializes in hemp for grain. While they are determining the best methods for the greatest yield, Parr says they base the timing of irrigation for industrial hemp on their experience with similar crops, such as wheat or corn. Legacy Hemp generally waters during seeding and as flowers emerge. Hemp is sensitive to both over- and under-watering, so Parr says growers need to pay close attention during the entire growing season.

To find out more about growing industrial hemp in your region, contact your extension office.
Then, call your Valley dealer to learn more about best methods for growing industrial hemp.

*Bryan Parr, Agronomist for Legacy Hemp. www.legacyhemp.com.