Torpedopot
feeding the world

Hemp Growing Guide

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Overview

For farmers to overcome obstacles in the hemp industry, they need speed on their side. Especially in an environment where growing technologies are rapidly advancing, and crop mixes are quickly changing. Torpedopot™ has a proven record of success and has established itself as the worlds first Self-Watering, Fully Automated Vertical Gardening System. Our goals are to provide you with the most affordable and reliable modular growing systems in the world.

Torpedopot's intuitive design allows plants to grow faster, yield more density per square foot than any traditional or hydroponic gardening system available on the market. Initial setup time is less than an hour and even less time is needed throughout the season to manage your vertical garden. Once the system is set up, it is controlled by just turning a knob.

Torpedopot™ patented revolutionary vertical growing technique allows gardeners and large-scale farmers to increase their yields more than 500% when compared with traditional farming techniques and hydroponic growing methods. Your role in the setting up your self-watering planter is to add dirt, seeds or seedlings, turn on the knob and walk away. You can now grow thousands of fruits, vegetables, herbs, nuts, and grains all by twisting a knob. Torpedopot™ can grow more than 3.5 million plants inside of 1.33 acres of land.

Immediate Benefits

- **Vertical Growing**: Grows more plants than traditional farming, or hydroponics.
- **Automated**: Provides water and nutrients to nurture and feed your plants.
- **Mobile:** Torpedopots™ is a garden lego kit that erects into a large farm.
- **Capital investments**: No tools are required, and setup is easy
- **Growth**: Consistent feeding allows plants to grow fuller and reach maturity quicker
- **Organic**: Grow crops organically using your mix of fertilizers
- **Production:** Torpedopot™ grows more plants than any other growing application.
- **Pest:** Blocks entry from rodents and other pests.
- **Germination**: Germinates and manages plants throughout their full Lifecycle
- **Maintenance:** Requires less than four hours of monitoring per growing season.
- **Resources**: Uses less water, land, fertilizers, fungicides, pesticides, herbicides,...
- **Weeding:** Virtually no weeding

Traditional Farming

Torpedopot™ boasts many advantages over conventional farming. These advantages are found in Torpedopot's ability to move water and nutrients through the system in a way that significantly lowers operating costs and provides substantially increased yields for an array of crops.

Torpedopot will yield highly attractive returns for growers. The payback period is less than a year for specific crops. The internal rate of return can range between 40-100% for commonly grown outdoor crops. High profits are driven through a large reduction in variable costs.

Torpedpot™ gives growers inherent strength. Growers can now afford to buy outdoor growing space much closer to cities where operating costs are higher because Torpedpot™ technologies use substantially fewer resources. Lowering operating cost is what gives newer growing communities a considerable advantage over conventional farming. Currently, vertical farming takes place indoors, inside of facilities. Facilities may cost upwards of tens of millions of dollars. You do not have to make substantial capital investments to profit from the use of Torpedopot™. Torpedopot™ is a mobile solution that allows you to grow plants indoors and outdoors. Torpedopot™ eliminates and reduces several substantial costs borne by farmers each year by creating new processes for preparing the soil, seeding, harvesting, and processing. This includes but not limited to:

- Stop using expensive equipment that needs replacing every five years
- Reducing our dependency on fertilizers and preserving our precious water
- Curtailing dependence on insecticides, fungicides, and pesticides
- Decreasing our carbon footprint by burning fewer fossil fuels

Torpedopot™ is highly efficient and requires 95% less water per acre when compared to conventional farming methods. Its patented water technology substantially reduces surface evaporation. The system allows water and nutrients to flow into the planter and directs it to the plant's root system. The self-watering planter isn't intrusive but is designed to promote root growth. Torpedopot™ gives plants the nutrients they need and in accordance to their feeding schedule. These activities are taking place just below the surface of the soil. Our self-watering planter allows plants to reach their full potential.

Simple Design in a Powerful Tool

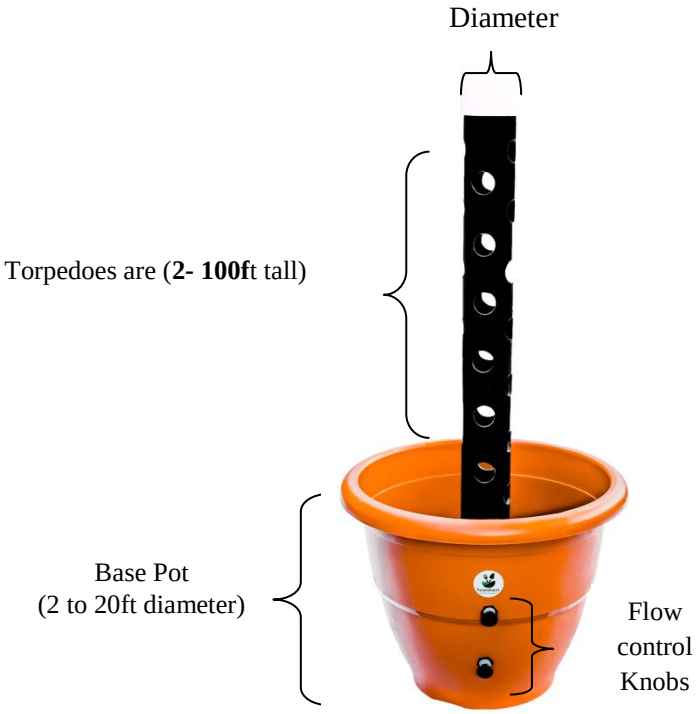

Figure 1 - 1,000 Banana peppers

Figure 2 - Thousands of herbs

Figure 3 - 52 Eggplants

Torpedo Capacity Table

Torpedo Diameter inches	Torpedo feet Tall[1]						Comments
	2ft	5ft	10 ft	20 ft	50 ft	100ft	
2	5	20	40	80	200	400	2-inch - are for plants with shallow root systems. 4-inch Can handle most plants root systems 12-inch For high capacity growing
4	10	40	80	160	400	800	
12	16	28	112	252	560	1,120	

[1]This chart is only a guide. Capacity is based upon root systems, access to light and other variables. Every plant responds differently to their environment. Pls, consult with you agronomist for an accurate assessment. These are projections based upon the performance of a six-foot Torpedo.

Feeding your plants

We must rethink where we grow our food. Irrigation and cultivation methodologies are helpful, but when long periods of drought and rain occur, crops can be wiped out. From a consumption standpoint, how we grow our food is as equally important as where we grow our food. Tools are useful for processing foods, but the soil is the main determinate for plant growth. Our focus should be on improving the biological and chemical process that impact plant production. Torpedopot™ optimizes growing conditions to increase the yield.

Torpedopot™ Vs drip irrigation

Drip irrigation has been used for thousands of years. It saves water and nutrients by allowing water to drip slowly to the roots of plants, either from above the soil surface or buried below the surface. However, what once was considered a "God sent" is now a risk. It is not a risk because it saves water and time; its a risk because our needs have changed. Drip irrigation is not designed to provide water throughout the plant's life cycle. It does not take into consideration the plant's nutritional needs throughout its growth phases. Drip irrigation is a low-cost effective solution for small irrigation projects but when you are trying to grow plants or provide food, textiles, and medicine for millions of people the concept is impracticable. Germinating seeds and transporting them to seed trays only to place them in 6-inch containers is costly. When they have outgrown their space they need to be transported to large vessels. Nobody doubts that this process is impracticable.

Drip Irrigation can not evenly distribute micro-nutrients to plants. Crystallization due to evaporation and soil filtration makes it challenging to distribute dissolved solids. With drip irrigation, dissolved solids concentrate on the surface of the soil and have a delayed release that carries over into additional feeding cycles, making it extremely difficult to measure the nutrients effectiveness. Exposing nutrients and water to air is a dangerous combination. In one drip irrigation study, a total of 25 fungi isolate and 121 bacterial strains were isolated from water samples collected from drip irrigation systems in tomato greenhouses. Drip irrigation is inefficient and is no longer a practical tool for feeding plants. Torpedopot™ carries nutrition directly to the plant's root system to ensure its health throughout the plant's lifecycle. You can adjust the flow of water and nutrients to accommodate your plant's needs.

Self-watering planters

The “self-watering” planters that are available on the market today are not truly self-watering and rely on refillable water reservoirs to supply water to plants roots. For those that go on extended vacations or spend parts of their year in different areas of the country these systems buy you an extra week or two and do not allow the peace of mind that is achievable with Torpedopot™. Torpedopot™ outcompetes all of these products as it allows for you to leave for

months at a time or even an entire year and earns you the peace of mind that you will come back to a garden that is even more abundant and beautiful than when you left.

Torpedopot™ in-line watering system

Most growers rely on rain or irrigation systems to water their plants. Plants that experience prolong drought become stressed and lose their vitality. Some plants find it hard if not impossible to bounce back and restore new growth in areas that have collapsed due to lack of care. If the soil gets excessively dry, water will pass through it. It is like drinking a cup of water with a hole in it. It is easy to assume that the water applied to the planter is taken up by the plant. Water absorption into the plant's root system takes time. Torpedopot ™ aids in the photosynthesis and respiration process.

Figure 4 - Drip irrigation

Torpedopot™ in-line watering system is a serious game changer. The Torpedopot™ gives you the ability to adjust the plant's water and nutrient uptake. This feature helps to prevent wilting or the collapsing of the plant caused by the lack of water pressure. This one feature will make an unbelievable difference in the health and beauty of your plants.

Torpedopot™ utilizes a patented inline irrigation system that gives you the ability to adjust feeding schedules and quantities of nutrients for every Torpedopot™. If you are experiencing disease problems, Torpedopot™ gives you the ability to innoculate groups and categories of plants to control diseases and pest. You don't have to worry about carrying over chemicals into other growing communities.

Torpedopot™ has been designed to help your plants, live longer and look luscious. As water moves through the Torpedopot™, essential minerals and nutrients are delivered to different areas of the planter. Indoor plants and outdoor vegetables yield tremendous growth. Nutrients released in the Torpedopot™ mimics the real world environment. Nutrients are carried to Torpedopot™ and released in a way that does not disrupt the soil matrix.

Fungus

Torpedopot™ promotes fungal growth. Torpedopot™ creates an environment that supports fungal communities so that the plant's root system can flourish. Soils collected after plants have grown in the Torpedopot™ are fertile. Fertility is experienced because the microbes, organic, and non-organic matter in the soil collectively created an environment that's conducive for root growth. Torpedopot™ can use specific uses mycorrhizal inoculants produce 40 to 65 percent more volume. Results can be much higher (+1000% for woody plants +40% for non-woody plants) depending on the plant type. Mycorrhizal inoculants have several distinct advantages over other products:

- Produces crops in drought conditions
- reclaims unresponsive soils
- grows crops in deficient soil and even grows crops in sand
- minimize or even eradicate fertilizer requirement and run-off contamination
- reduces some pathogens and disease

While bigger plants are normally better, most hemp growers desire seed production.
Growth does not necessarily mean more seeds.

Figure 5 - Plants on the right are grown using Mycorrhizal inoculants

Top 11 Problems for Hemp Growers

1. Nutrients that are typically applied to an acre of hemp; 200 lbs nitrogen acre, 40 lbs phosphate, 30 lbs sulfur, and potassium 200lbs can be transported through Torpedopot™ patented feeding system. It prevents your nutrients from polluting the air and lakes and applies it directly to the plant's root system. Nutrients that are absorbed by the plant can be collected and recycled. This process eliminates waste and reduces cost. Torpedopot™ patented feeding process reduces environmental hazards due to over fertilization.

2. Hemp germinates quickly but has a very high mortality rate! Any deficiencies in the soil such as salinity, pH, organic matter, moisture, drought, warm soil can drastically impact germination rates and early plant growth. Rapid changes in soil conditions can be addressed immediately. Torpedopot™ watering and nutrient technology allows growers the ability to make field adjustments as needed.

3. Hemp is typically seeded at about 25-25 lbs per acre which yield about 100 plants per square yard. Average mortality rates are around twenty-percent, but high environmental stress can drive mortality rates as high as 85%. Growers conduct extensive field preparations to eliminate weeds because weeds can impact affect hemp growth. In the Torpedopot™ weeds are virtually nonexistent. You don't have to wait for the wind to calm down before applying herbicides because in the Torpedopot™ weeds and herbicides have a negligible impact on hemp growth. So, seed density can be reduced to 10 to 20 lbs.

4. Torpedopot™ allows you to tailor your feeding schedules. In Growing spaces where there is reduced lighting, you can supplement your plants with nutrients. Also, you can funnel nutrients to growing zones and see the effects immediately. You can also create unique feeding schedules, portions, and application. You can easily manipulate conditions that affect the plant's height, maturity, and seed size and make them more uniform. You can develop more robust grain varieties for higher fiber and nutrient content.

5. The most finicky part of the hemp growing process lies in satisfying the seed. Hemp seed requires moistened soil with a depth of about .5 to.74 inches in depth. Variations in moisture, temperature and seed depth can be easily controlled using Torpedopot™. You can germinate hemp seeds directly in Torpedopot™.

6. Eliminate the use of fungicides and herbicides. Fungicides create residues that may affect the hemp seeds. Here are three dominant out of pocket expenses that are practically eliminated
7. Capital Investments for farm equipment is enormous. Combines can cost upwards of four hundred thousand dollars. You can quickly start small Torpedopot™ hemp farm for that amount of money. Why not harvest on demand! Depending on what your target crop is, you can separate male and female plants. After you densely seeded and pollinated the crop. You can collect the male plants from the Torpedopot™ after the pollination has taken place. Ask about our automatic harvesting systems.

8. Hemp is photoperiod sensitive. A shorter daylight period automatically triggers its reproductive cycle. Hemp is good for filling out an area. Its canopy ensures that weeds don't get sunlight. However, even though you give the plants more room to spread out seeds production is not affected by the additional room. Space has a negligible effect on seed production. So densely populated the plants in Torpedopot™ will provide you with practically the same yields as 36 inches planted rows.

9. When harvesting hemp generally yields about twenty-percent of plant material and foreign matter. Torpedopot eliminates harvesting other plants because there are no weeds. So, you are harvesting one hundred percent of what was grown. This reduces stress on your drying and sorting processes. Nothing is wasted. Pathogens and sanitation issues due to sitting after harvesting are drastically. Torpedopot™ can conduct pathogenic, soil, sanitation and THC testing.

10. Most One of the most significant problems with hemp is germinating the seeds and is getting rid of hemp debris. Most growers burn the hemp fibers in the fall or early spring while others plow debris back into the fields to utilize its rich nutrient fibers. However, it may take time for the materials to decay to start a new crop. Most farmers burn high BTU materials if it is allowed. Once the soil is over fertilized, it may take time for microbes to initiate the decay process. The microbial level in the ground must be vibrant enough to promote the decaying process. Plants grown in Torpedopot™ can be readily isolated and removed from the environment so it can be ground down for use next season. Hemp is full of nutrients.

11. Organic growing can be challenging. Organic growers don't get good yields because the soil lacks fertility but at the same time don't get good fertility because the weed is sucking all of the nutrients out of the ground. Torpedopot™ is ideal for organic growers. Torpedopot™ eliminates almost all of the variables that impact the success of your crops. Weeds are practically nonexistent. You can organically fertilize and achieve high yields. Hemp can be densely compacted in the Torpedopot™. Pesticides and herbicidal residues left from rotating crops are eliminated. Organic hemp crops can be easily isolated for harvest.

Torpedopot's executive team is comprised of 5 individuals that bring in excess of 100 years of combined business experience to the marketplace that will allow the company to thrive. These expertise cover core strategic areas such as accounting and cash management, risk management, process improvement, IT security, communication, and sales. The core team of executive's propriety networks includes high-ranking government officials both in the US and abroad.

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