



Torpedopot™ Site Checklist



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Overview

Torpedopot™ has established itself as the world's first fully automated, self-growing, vertical gardening system. Our goals are to provide you with the most affordable and reliable modular growing systems in the world.

Torpedopot™ intuitive design allows plants to grow faster, yield more density per square foot than any traditional or hydroponic gardening system available on the market. The 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, the self-growing, vertical gardening system can be automated using a timer or our Data Acquisition Test and Control Station.

Torpedopot™ patented vertical growing technique allows gardeners and large-scale farmers to increase their yields by more than 500% when compared against traditional farming techniques and hydroponic growing methods. Your role in setting up your self-growing planter is to add dirt, seeds or seedlings, turn on the planter, select feeding schedules, and enjoy the growth for the rest of the season. You can now grow thousands of fruits, vegetables, herbs, nuts, and grains without having to touch the ground. Torpedopot™ can grow 3.5 million plants inside of 1.33 acres of land.

Immediate Benefits:

- Vertical Growing: Grows more vertically than traditional farming or hydroponics.
- Fully Automated: Requires minimal human intervention.
- Mobile: Torpedopot™ are garden lego kits that erects into a large farm.
- Capital investments: No machinery or 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
- Pest: Blocks entry from rodents and other pests.
- Germination: Germinates seeds and manages plants throughout their full lifecycle
- Weeding: Virtually no weeding
- Maintenance: Requires less than four hours of monitoring per growing season.
- Resources: Uses less space, water, fertilizers, fungicides, pesticides, herbicides and more



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Purpose of the Torpedopot™ Site Checklist

The aim of this Site Checklist is to give you some practical strategies for handling and responding to growing issues. Please answer the following questions as completely and accurately as you can. Also, please be as detailed as possible providing additional information you think is important.

Your Torpedopot™ Site Checklist is a type of job aid. Use it as a tool during the discovery, and maintenance process. It is a roadmap that will reduce failure and ensure consistency and completeness in your growing application. It lays out tasks to be done and documentation of the task for auditing purposes. Your Site Checklist will ensure:

- That critical items are not overlooked
- That you are aligned with regulatory agencies, compliance organizations and local codes and food standards.
- That you have a standardized tool for tracking your activities
- Provides a level of assurance that quickly identifies error in the process.
- The results will be used as the baseline for Standard Operating Procedures (SOP's)
- Provides clarity and understanding of all moving parts

You are the expert in your processes!



Industry Focus

1. Provide detailed information about each industry sector you are serving? (Medical, Food, Hemp, textiles, Nursery, Residential, Inks, Paints, Plastics, Cosmetics, etc.)
2. Provide detailed information about your growing, harvesting and processing demands of your operation.



Property

Torpedopot™™ can make more efficient use of household spaces: backyards, patios, walls, rooftops, basements, window- sills, and indoor areas. Torpedopot™™ can also accommodate large farming initiatives as well as provide substantial profit incentives for mass food production.

The Dimensions or survey of the property will help us determine how to setup up your Self-growing system. Substantial differences in elevation can impact how nutrition and water are transferred. Develop a plan for integrating your Self-growing system into your existing area. Your Self-growing system will provide you with years of service. They are mobile and can be dissembled in a matter of minutes. Torpedopot™ makes harvesting an easy task.

Please provide an explanation for the below questions with attachments	Commercial
Pictures of the property: Please provide the physical address and location?	
Plot Size: Provide dimensions and elevation drawings.	
Indoor/outdoor: Is the location shaded area or in direct sunlight?	
Foundation: Are we growing on weeds, crushed stone, etc?	
Insects or Predators: How are you currently dealing with this issue	
Erosion: Mainly concerned about the air particulate content,	
Runoff: leaching promotes toxic microbial growth and gas buildup.	
Weed control: What pesticides, fungicides, and herbicides are you using	
Elevation: How far are you from the water source?	

✓ Check the task as complete when information has been attached



Soil

Organic matter plays an essential role in maintaining soil quality. When microbes breakdown organic matter and releases it as soil, nutrients become released and are made available to the plants. As a response, the plant's root system creates root/fungal networks that increase soil consistency, provide filtration, and improves the overall water holding capacity of the soil. Soils that have acceptable microbial content should not see a substantial decrease in its potency. Torpedopot™ is designed to develop microbial colonies for feeding your plants. You do not need to use fertilizer.

Please provide an explanation for the below questions with attachments	Commercial
Please provide laboratory soil test results.	
What percent components constitutes your soil?	
What soil pest or diseases have been identified?	
What is the biomass content of your soil?	
What does your soil management program consist of?	

✓ Check the task as complete when information has been attached



Water Quality

When water is tested for plant suitability, the mineral nutrient content is analyzed, as well as the salts, pH, and alkalinity, which affects the availability of nutrients for the roots to take up. Microbiological risks are ever present with water systems. Risks can arise through poorly maintained water generation systems, through badly designed distribution networks (such as the presence of dead legs). These dead legs build up algae and other deadly microorganisms.

Please provide an explanation for the below questions with attachments	Commercial
Do you filter your water or process it before use?	
Do you use underground, surface or municipal water?	
How is your water treated?	
What types of dissolved solids are in your water?	
Do you use salts to treat your water?	
Provide the analytical results for salts, pH and alkalinity	
Is there potential for microorganism's to enter your water stream	
Are you using treated waste water to feed your plants	

✓ Check the task as complete when information has been attached



Water Pressure

Elevation changes can add or subtract water pressure from your water system. That seriously changes how well the system works. Each foot of elevation change is equal to 0.433 PSI of water pressure.

Please provide an explanation for the below questions with attachments	Commercial
How big is the distribution network?	
How many drop points are there in your current system?	
What regulators do you currently use to manage water usage	
How far is water being dispensed from the source?	
Is your water distribution network dedicated?	
Are there rapid fluxuations in pressure in your network?	
Are you using elevated tanks or something similar?	
Does your consumption change over time?	
How does it take for pressure recovery time after water is dispensed?	
What pressure boosters, pumps, and piping are you using for you?	

✓ Check the task as complete when information has been attached



Nutrients

Fertilizers increase the number of nutrients in the soil that make it more fertile and friendly to plant growth. The particle size of fertilizer materials directly affects release rate, potency, and working hazards such as dust generation. Naturally occurring organic fertilizers include manure, slurry, worm castings, peat, seaweed, sewage, and guano. Green manure crops are also grown to add nutrients to the soil. Manufactured organic fertilizers include compost, bone meal, and seaweed extracts. Inorganic fertilizers are typically synthesized materials containing the three primary ingredients N-P-K.

Please provide an explanation for the below questions with attachments	Commercial
What are the particle sizes of your fertilizers?	
What is there rate of dissolution?	
How corrosive are your fertilizers?	
How soluble are the fertilizers you're using?	
What precipitates are left over from fertilizer usage?	

✓ Check the task as complete when information has been attached



Plant Anatomy

The shape, structure, and size of plants vary. The three major vegetative organs: the root, the stem, and the leaf, as well as a set of reproductive parts that include flowers, fruits, and seeds, helps to determine optimal growing conditions in the Torpedopot™. list the below information by plant type.

Please provide an explanation for the below questions with attachments	Commercial
What type or categories of plants you expect to grow?	
What is the expected sizes?	
What is the expected height?	
What is the expected width?	
What is the expected density?	
What is the expected capacity?	
Do your plants have any special nutritional needs?	
Are there any special root requirements?	

✓ Check the task as complete when information has been attached



Crops

We need to have an understanding of the plants growing season(s). The growing season has an impact on the plants genetic adaptation, seed, germination, growth, reproduction, and pollination in the Torpedopot™.

Please provide an explanation for the below questions with attachments	Commercial
What are your growth phases/seasons?	
Do you rotate your crops?	
Harvest method: immediate or continuous throughout the year	
How do you recycle ant waste?	
Please list all insecticides, fungicides, herbicides used in the past.	

✓ Check the task as complete when information has been attached



Weather

Climate change can disrupt food availability, reduce access to food, and affect food quality. Torpedopot™ provides an extra layer of protection from drastic increases in temperatures, changes in precipitation patterns, changes in extreme weather events, and reductions in water availability.

Please provide an explanation for the below questions with attachments	Commercial
What is the average temperature per season?	
What is your lonest growing season?	
What is the average amount of rain fall?	
What is your period of longest sunlight?	
What is the average moisture content for your growing seasons?	

✓ Check the task as complete when information has been attached



Light

Light consists of several different wavelengths, each of which produces its color. Sunlight is abundant in red and blue hues, both of which are extremely important to plant growth. Unfortunately, many artificial light sources produce more of the green and yellow wavelengths, which provide very little energy for plants. Please give feedback on the types of light you are using?

Please provide an explanation for the below questions with attachments	Commercial
Is your operation managed entirely using sunlight?	
Do you use any artificial lighting?	
What Wavelength are most beneficial for your plants?	

✓ Check the task as complete when information has been attached



Harvest Method

Most farmers encounter different climates, landscapes, microorganisms, plants, and animals so they must adapt their growing practices to local conditions. Growing crops without pollinators are hard, if not impossible, even with natural resources, energy, tools, and money. Pollinators fertilize flowering plants by transferring pollen from one flower to another.

Please provide an explanation for the below questions with attachments	Commercial
Are you harvesting roots, stems, flowers, leaves, plugs, sprouts, seeds, etc?	
What are you most labor intensive harvesting activities?	
What types of processing equipment do you use?	

✓ Check the task as complete when information has been attached



Environmental Controls and Monitoring

Keeping plants healthy and prosperous requires the best possible growing environment. Maintaining a controlled temperature within a greenhouse environment is crucial. Falling temperatures and water pressure, poor ventilation, humidity changes, water leaks, and power outages can quickly sabotage your plants.

Please provide an explanation for the below questions with attachments	Commercial
How do you monitor temperature?	
How do you monitor humidity?	
How do you monitor pressure?	
How do you monitor gasses?	
What is your total water usage per month?	
How do you monitor air flow?	
How do you monitor sunlight?	
How do you monitor rainfall?	
Do you leverage solar technology?	

✓ Check the task as complete when information



Small scale agriculture is the developing world's single biggest source of employment, and with the necessary support it can offer a sustainable and productive alternative to the expansion of large-scale, capital-intensive and labor displacing corporate farming. As farmers continue with outdated traditional farming techniques including tilling their land multiple times a year before planting seeds, laser leveling, paying teams of workers to operate expensive machinery and harvest their land, the logistical costs associated with managing thousands of acres becomes exuberant and in many instances generates negative economic profits.

Torpedopot™ dramatically reduces the high level of variable costs associated with traditional farming methods outdoors as well as new-age hydroponic, aquaponic, and aeroponic techniques indoors. Torpedopot™ will revolutionize and enhance the food supply and reduce your carbon footprint. Once businesses are established the governments can enjoy new streams of tax revenues.