VERTEGROW

Vertegrow began as a commercial vertical farming operator located at Waterside Farm in Aberdeenshire. In partnership with Intelligent Growth Solutions (IGS), the farm launched Scotland's early vertical farm—deploying a single-tower, 300 m² controlled-environment system in 2020–21 to grow leafy greens, microgreens and herbs year-round with minimal energy use and rainwater harvesting. However, the venture has since shifted from food production to medicinal cannabis cultivation under the company Waterside Pharmaceuticals, founded by Martin Dickie, co-founder of BrewDog. In September 2024, Waterside Pharma obtained a Home Office Controlled Drugs Licence and in July 2025 began its first full crop harvest at the indoor vertical farm, producing starter material for medical cannabis products.

1. Business Profile

- **Location:** Newburgh, Aberdeenshire, Northeast Scotland
- **Established:** 2018-2019
- **Type of CEA:** Indoor growing company
- **Scale:** Single tower, 300 square meters
- **Energy Source:** external power grid
- **Ownership Structure:** Systems partnership with IGS. Funded through Steadman Partners.

2. Specifications

CROPS GROWN	In 2023, Vertegrow made a strategic decision to transition its operations toward the cultivation of medicinal cannabis for pharmaceutical use.
INFRASTRUCTURE AND REGULATIONS	• Underwent a 1-year application process to obtain a license for cultivating medicinal cannabis. • Adapted facilities to meet stringent hygiene and regulatory standards required for pharmaceutical-grade production. • Planning to relocate to a larger site eventually to support expansion and operational efficiency.
SUSTAINABILITY AND COMMUNITY ENGAGEMENT	• **Waste Reduction:** focus on precision agriculture and controlled environment systems inherently reduces spoilage and overproduction. • **Community Integration:** work alongside farmers on site, demonstrating a hybrid approach. • **Environmental Controls:** includes advanced air filtration, growing trays, LED lighting, automation, clean entry systems, and rigorous sanitation protocols.

3. Business Model & Operations

TARGET MARKETS	Vertegrow recognized that vertical farming is best suited to large-scale production, where streamlined supply chains and consistent output are essential to remain competitive. As such, their model emphasizes volume-driven efficiency over small-scale, fragmented sales.
PRICING STRATEGY	• Looking to generate $120,000 in income from a single tower per year. • Minimum market size for commercial farm viability would be 2-4 towers.

SKILLS & LABOUR	• **Labour Sourcing:** was able to draw on labour from its existing farmland operations across Scotland. • **Team Composition**: team is relatively top-heavy, with experienced leadership guiding the business. Notably, one team member holds a PhD in plant science—an asset not essential for day-to-day operations but valuable for crop experimentation and innovation. • **Technology and Training:** The "plug-and-play" nature of IGS technology simplifies many aspects, making it accessible to operators without deep technical backgrounds. For new entrants, access to technical support for troubleshooting and maintenance is crucial, often provided by larger CEA franchises.

4. Conclusions and Recommendations

- **Right-Sizing Ambitions**: initially set highly ambitious goals, which proved difficult to sustain. Over time, the business recognized the need to scale down to a more practical and economically viable model. This experience highlighted the importance of aligning operational scale with realistic market and resource conditions.
- **Minimum Viable Scale**: vertical farming requires a certain scale to achieve cost efficiency. Vertegrow's experience underscores that small-scale operations often struggle with thin margins and high per-unit costs, making economies of scale essential for long-term viability.
- **Strategic Relocation**: exploring relocation to a larger site that offers access to lower-cost, renewable energy sources such as AD or wind power. Co-locating with energy infrastructure and employment hubs would reduce operating costs and support workforce development. A site adjacent to a wind farm is preferred to secure long-term, stable energy contracts.
- **Technology and Integration:** while the core technology functions well, making the business model economically sustainable remains a challenge. Integrating modular vertical farming systems into existing agricultural operations, such as glasshouses with established supply chains, may offer a more practical path to extending growing seasons and improving efficiency.
- **Transferable Skills and Support Needs:** for experienced growers, many of the skills required for vertical farming are transferable. However, success depends on a solid understanding of plant science, system management, and operational discipline.