

Controlled-Environment Food Systems

FUTURE VERTICAL SPROUT

International identity of Rad Rouyesh Ayandeh

Turnkey plant-factory systems for resilient, local and year-round horticulture

Feasibility to first harvest

Future Vertical Sprout integrates engineering, automation, cultivation protocols, installation, operator training and remote support. The proposition is a production system with agronomic delivery - not hardware alone.



24,000

saleable plants per 15-day cycle*

48,000

saleable plants per month*

15 days

documented leafy-green cycle*

Up to 7

crops under one nutrient regime*

Core delivery capability

- Market and site feasibility, crop selection and production planning
- 40-ft high-cube container and fixed-site plant-factory design
- PLC-based automation, remote monitoring and data-led operations
- Cultivation protocols and proprietary A/B/C/D nutrient supply
- Installation, commissioning, operator training and one supported crop cycle
- Remote troubleshooting, local-team enablement and optional support contracts
- Solar and hybrid energy integration subject to site assessment

Documented operating profile

Parameter	Current reference
Growing positions	24,800 holes
Operating allowance	800 positions per cycle; 1,600/month plan
Water benchmark	Approx. 1-1.5 L per kg*
Cultivation density	Up to 300 plants per m2*
Electrical service	3-phase, 32 A connection
Observed phase draw	30 A / 27 A / 25 A worst observed
Operational diversity	0.7 reference factor
Production pattern	Year-round, controlled environment

* Performance depends on crop, cultivar, site, operating protocol and environmental set-points; project validation is required.

FAO/UN Capability Alignment

FUTURE VERTICAL SPROUT

International identity of Rad Rouyesh Ayandeh

A modular delivery model for food security, resource efficiency and local capability building

Where the solution can contribute

Food access

Local production near communities, institutions and remote demand centres.

Water efficiency

Recirculating hydroponic production with a catalogued benchmark of about 1-1.5 L/kg.

Climate resilience

Insulated, controlled environments that reduce dependence on seasonal field conditions.

Capacity building

Commissioning, operator training, supported first crop and remote technical assistance.

Institutional delivery model

01

Assess

Climate, power, water, logistics, crop economics and local demand.

02

Configure

Facility, crop plan, controls, nutrient programme and energy architecture.

03

Deploy

Manufacture, ship, install, commission and validate operating parameters.

04

Transfer

Train local staff, support the first crop and establish maintenance routines.

05

Sustain

Remote monitoring, replenishment and contracted technical support.



Evidence and procurement readiness

Available evidence includes operating-system photographs, product specifications, production records, public exhibition participation, technical permissions and team capability. Corporate and financial documents will be supplied through the formal UNGM registration process once the exact legal entity data is confirmed.

Dubai vertical-farming exhibition participant, 2025

Contact and institutional engagement

info@farmingvertical.com | verticalsprout.com | farmingvertical.com/un-fao-opportunity-gateway/

Registered entity: Rad Rouyesh Ayandeh Private Joint Stock Company | National ID: 14011478131 | Operational base: Karaj, Alborz, Iran