

Fruitwise HyGro vertical growing system

Joanna Wood investigates an exciting new growing medium for soft fruit production

With pressures mounting on strawberry growers to find cost savings while maintaining or increasing productivity, any new intensive growing system is worth considering.

The Fruitwise HyGro vertical growing system from Agrovista offers significant advantages to commercial growers looking for higher strawberry production per square metre than tabletops without loss of yield per plant.

A key benefit as growers can optimise land use with fewer tunnels needed to grow the same amount of crop – fewer tunnels to cause planning headaches plus a reduction in tunnel establishment and maintenance costs.

Originally developed in South Africa, the Fruitwise HyGro vertical growing system consists of columns of coir based, wagon-wheel shaped planting cells.



The perforated central column is made up of injection-moulded segments that lock together. In tunnels, a Fruitwise HyGro column can be up to nine planting cells high. Each cell is planted with four plants resulting in 36 plants per column.

The central tubes are held upright by trellis wires along. Two drip lines are fed into each planting cell. Run-off from each cell drains into the central shaft. As the cells are independently

irrigated and drained there is no chance of transmission of water borne disease. The system can be managed for run-off to waste or for recirculation unlike table tops where run-off from each bag drains to waste on the tunnel floor.

SAVINGS

The system offers significant water saving (as little as four times less water than peat bags – on average 50 to 60ml per day per plant).

Agrovista regional director, Charles Coslett says that the Fruitwise system offers at least a 50% increase in productivity of saleable fruit per unit area compared with tabletops. The coir discs are re-plantable and last two years. The robust modular framework will last at least 10 years. The optimum column spacing in the row is 0.95m with 1.0m to 1.6m between rows according to tunnel size leaving two alleys for sprayer and picker access.

In a trial with Elsanta under glass at Duchy College Cornwall, researcher Barry Mulholland found that the Fruitwise system's high plant density (at a column spacing of 135cm) increased the yield potential three-fold over tabletops.

He believes that the fairly deep cylindrical shape of the rooting medium in the planting

cells is better suited to strawberries than the shallower substrate in bags.

In Scotland, a joint commercial development project between Agrovista and the Cop Farms, Blairgowrie for tunnel crops is underway. Last year using Sonata, the Fruitwise system cropped at 62.5t/ha which was double the comparison tabletop crop.

Picking costs were significantly reduced because so many more plants can be picked from one spot. The Fruitwise system is also under trial at several large UK strawberry growers and there is considerable interest and more development work going on in Holland and Germany.

Agrovista will be featuring the system at Fruit Focus on 21st July at East Malling Research.