

Haygrove

EZVENT TUNNELS

PART OF THE
ADVANTAGE RANGE



FOR GROWERS, BY GROWERS

Born of the berry growing industry over 30 years ago, Haygrove now supply growing systems to the best growers of over 30 crops in more than 50 countries around the world.

As commercial growers ourselves, we understand the complex challenges presented by climate, geography, crop sensitivities, labour resourcing, market demands and the ongoing development of technology that will reshape our industry.

Our engineers work with our growers to innovate solutions that are functional, sustainable and profitable. Our polytunnels, substrate systems and associated technologies are developed and tested rigorously on our own farms to optimise the natural environment for maximum productivity and quality of crop.

As a business we are working strategically to create employment, provide healthy food sources for the world's growing population, and consistently improve environmental standards for the future of our planet.

With our expansive range of products and expertise, we work collaboratively with each of our customers to cultivate their potential, for the long term.

The logo for Haygrove, featuring the word "Haygrove" in a white serif font. A white arch is positioned above the letters "y" and "g", spanning across them.



EZVENT

MECHANISED VENTING AT FIELD SCALE SIMPLICITY

EZvent allows you to vent at the optimal moments and with sufficient frequency to maximise yield, whilst minimising labour bills.

What's the Advantage?

EZvent is part of our premium Advantage series which has been specifically engineered with tomorrow in mind and includes range of venting options for superior return on investment. Strength, ease of management and a superior agronomic environment allow growers to reduce labour requirements, extend cropping seasons and optimise yield and quality.

What's the value of venting polytunnels?

Management of the temperature and humidity to create the optimal growing environment has been shown to lead to overall increase in both crop yield and quality.

How often have you found yourself compromising a crop because labour was short, or you are assessing the cost vs benefit of venting?

Have you ever stopped and quantified the impact of NOT venting? What's the impact on yield and quality, ultimately on the bottom line by selling less Class 1? What's the impact on picking speeds, motivation of harvest team, P&D pressures, shelf life, buyer confidence, the list goes on...?

What yield uplift is achievable through better venting?

You need to look at the marginal gains. What is the percentage gain through maintaining optimal photosynthesis rates? Through reducing the incidence of powdery mildew or other fungal pathogens through better climate management? In picking speeds through better quality? Through reducing leg row wastage from wind and rain events? It all adds up.

Although an increased capital investment (compared to manually vented tunnels) EZvent optimises return on investment. With EZvent management of the internal environment allows each plant to thrive and reach its peak yield potential.

Payback Scenario

A 5% increase in yield on a 60t/ha strawberry crop equals an additional 3t/ha.

To put this into context, an average berry weight change from 20g to just 21g represents a 5% yield increase. An additional 3t/ha would give the grower roughly a 3–4-year payback on a Haygrove venting system investment.

YIELD AND QUALITY

Protecting crops from pests and adverse weather, our Advantage series tunnels optimise climate conditions for your specific environment and needs. Minimising wastage and maximising your yield potential, our industry-leading growing systems also enable you to forecast with greater accuracy, and so build strong relationships with customers who can rely on your performance. Confidence in your ability to consistently supply quality products will lead you to access premium markets and the opportunity to increase your profit margin.

With EZvent you can manage temperature and humidity to create the optimal growing environment which has been shown to lead to overall increase in both crop yield and quality.

EZvent allows you to regularly operate the vents at the correct moment and with sufficient frequency, without accumulating labour bills throughout the season.

Good management of EZvent venting has the potential to guarantee yield and quality by:

Maximising rate of photosynthesis through temperature control

- Minimising powdery mildew and other fungal pathogens through humidity control
- Increasing picking speeds through a higher percentage of better-quality fruit
- Reducing leg row wastage from wind and rain by closing vents and protecting fruit



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We have seen up to a 20% reduction in fruit wastage from the leg rows by using automated venting connected to climate controllers that operate based on wind direction.

The Haygrove EZvent tunnels are a great choice for maintaining an optimal growing environment.

Hugh Leach, Hall Hunter Partnership, UK

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LABOUR EFFICIENCY

Innovations in our Advantage range reduce set-up and running costs, including for skinning, venting, climate control and picking. Intelligent, cost-effective automation allows you to invest in smaller teams – mitigating the rising cost and scarcity of quality labour. Combining versatile infrastructure with a reduced payroll to optimise tunnel management, you can maximise profit while preparing for a robotics-centric future.

When looking at labour efficiencies there are two categories, operational and construction. The EZvent excels in reducing labour requirements in both .

Operational

EZvent eliminates the decision of compromising your crop because of labour shortage or the expense of venting.

When calculating operational labour efficiency, it is more than just a comparison of the labour currently used to manually vent by pushing the plastic up the hoop. The real returns are far greater, and need to be quantified by considering the yield uplift by timely and frequent venting.

EZvent can either be operated by mechanical chain drive or fully automated with electric vents connected to climate control sensors. The decision to which is often determined by infrastructure in the field.

Construction

The patented design of the EZvent means that the installation time and cost is low compared to other mechanised venting systems, making EZvent the superior option for large field-scale projects.



SEASON EXTENSION

Our Advantage tunnels have been specifically designed to maintain optimum climate conditions outside of traditional cropping seasons, increasing yield-potential in both volume and flexible planting. Investment costs are absorbed over a longer period, enabling you to price competitively within the market, and achieve greater return on investment.

A reliable growing environment gives you agility to respond to customer-needs, drive longer term consumer engagement with your products, and maintain shelf-space with retailers. Longer working seasons also enhance your ability to attract and retain the most skilled workers.

EZvent allows you to manage internal environment to influence the crop timing.

At the beginning and end of the season when the fruit price is highest, but the weather is most variable, the vents can be operated regularly to manage temperature and humidity to lengthen the growing season.

Used in combination with rainwater gutters, EZvent provides an effective seal to the leg rows to force an early crop or late crop.



STRONG STEEL AND WIDER BAY WIDTHS

EZvent allows you to use wider bay widths, comparable to those of a glasshouse. Haygrove can confidently offer EZvent at wider bay widths due to the use of strong HSO steel. The 3-part EZvent hoop means hoop steel length is not limited by transport restrictions. HSO steel is our High Strength Oval Steel and its proven itself to be the smart choice for growers worldwide.

Increasing tunnel bay width has agronomic, operational and economic advantages. The wider bay widths allow a higher planting density as less area is used for the tunnel structure. The increased number of plants increases the intensity of production by increasing yield, a quicker payback is achievable.

The wider the tunnel the less fruit that is exposed to damage at the leg row from weather. Even if protected from the wind and the rain, the leg rows are generally cooler than the centre rows, less leg rows create a more consistent growing climate in the tunnel and therefore more consistent fruit timing.

Possibly the most significant advantage of using wider bay widths is reduction in capital and construction costs. The reduced number of leg rows and hoops reduces the amount of construction.

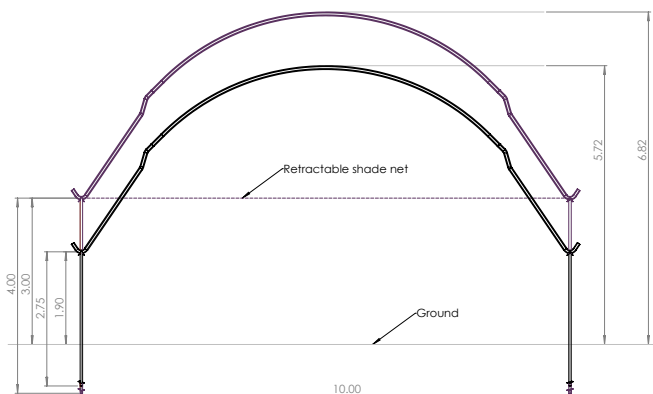


5 hectares of standard 8.5m tunnels on a 2.5m leg spacing has 2460 legs and 2419 hoops.

Increase bay width to 9.6m the number of legs is reduced to 2173 legs & 2132 hoops.

That's an 11% reduction in legs and 12% reduction in hoops which significantly reduces amount of required of transport capacity, construction time & labour

LEG HEIGHT OPTIONS AND RETRACTABLE SHADE NET



When choosing EZvent there are two recommended leg heights: 2.75m or 4m support leg.

With the addition of mechanical venting, it is practical to increase the leg to 3m to the gutter height as it is no longer necessary to be able to manually vent from the ground. The higher leg increases air volume within the tunnel which buffers temperature changes creating a more stable internal climate.

With a 3m gutter height, a retractable shade net can be installed without restricting access. The retractable shade net is another tool the grower

can use to manage the growing environment and improve the yield and quality.

Using a 2.75m leg is the most economical option and comparable to the manually vented Haygrove Pioneer tunnels. This is the best option if the tunnel is going to be manually vented initially and mechanised venting is going to be added at a later stage.

RAINWATER GUTTERS

With water availability becoming an increasing concern, it is a valuable asset to be able to collect water and store for crop irrigation and the benefits of mechanised venting go beyond improving yield and quality, and season extension.

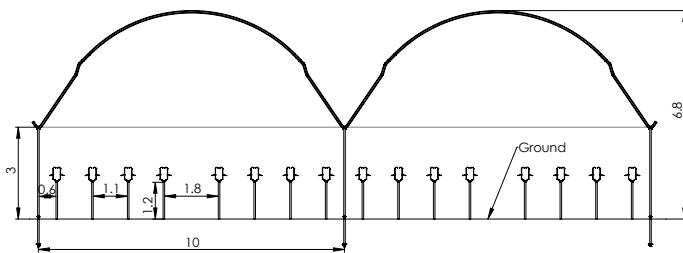
The combination of EZvent tunnels fitted with Haygrove's rainwater gutters maximises the rainwater collection. The harvested rainwater can be collected and stored for irrigation, mitigating the risk of crop failure due to drought.

EZvent allows for the vents to be closed quickly when rain is forecasted which both protects the crop and increases the water catchment area to include the entire tunnel covered area. When rainwater gutters are fitted to manually vented tunnels, its often not practical or possible to the close the vents when it starts raining which jeopardises the quality of the leg row fruit and significantly reduces the potential of the rainwater harvesting as the catchment area is smaller.

Haygrove's rainwater gutters are manufactured from pre-galvanised steel, which as an additional benefit add considerable strength to the tunnel structure.

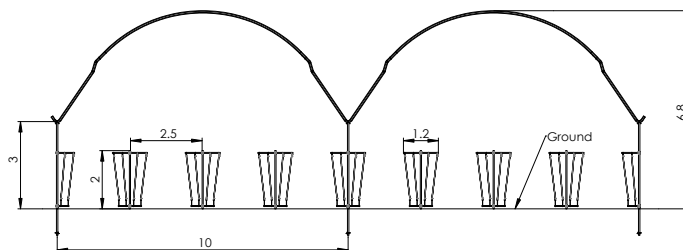


EXAMPLE EZVENT LAYOUTS



Single Row Substrate Gutters

This layout will give 8000 linear metres per hectare.



Cane Crops

By using a rainwater gutter the support leg row can be used as a crop row. This layout would give approximately 4000 linear metres per hectare of plants.

We understand that every geography, and every crop, requires specialist knowledge to cultivate the best possible growing environment at the lowest cost.

To discuss which systems could facilitate your growth, contact your local sales representative or email us on tunnels@haygrove.co.uk.



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ADVANTAGE RANGE