



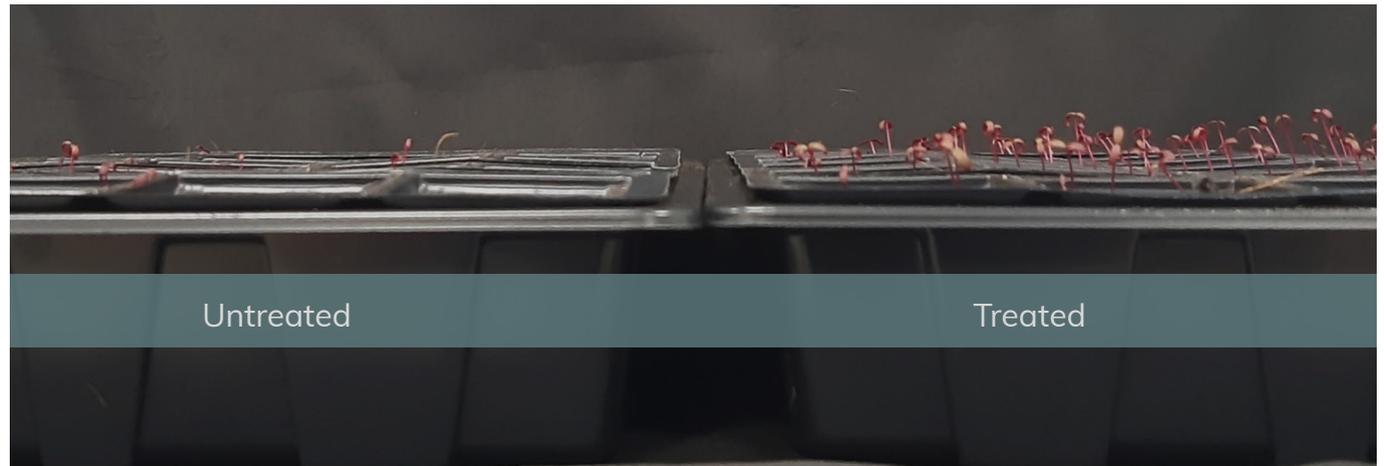
**Boosting  
Seed  
Health**

*Elevating Vertical Farming Production*

It is widely recognised that current farming practices cannot deliver the necessary increases in yield to sustainably feed the worlds' growing population and desire for more plant-based produce.

Decreasing farm land, emphasis on achieving year-round production and minimising water usage are all critical reasons why vertical farming is rapidly becoming an essential part of our agricultural future.

At Zayndu, we understand the vital role vertical farming plays in the future of mass food production. Consequently we have created a seed treatment system that not only delivers significantly improved germination and growth rate, but also improves crop success by removing harmful pathogens without the use of harsh chemicals.



## Our Technology

Zayndu was born to deliver exceptional seed health using technology developed at the world-renowned plasma research group at UK's Loughborough University.

Our cutting edge Activated Air™ process uses energy efficient, chemical free, cold plasma technology to kill fungi and bacteria. Delivering improved germination and productivity through a completely dry process with no residues.

- **Chemical Free**
- **Improved Germination**
- **Removes Pathogens**
- **Dry Process**
- **Faster Crop Cycle**
- **Low Energy**



**19%**  
BOOSTED GERMINATION



**10%**  
UPLIFTED PRODUCTIVITY



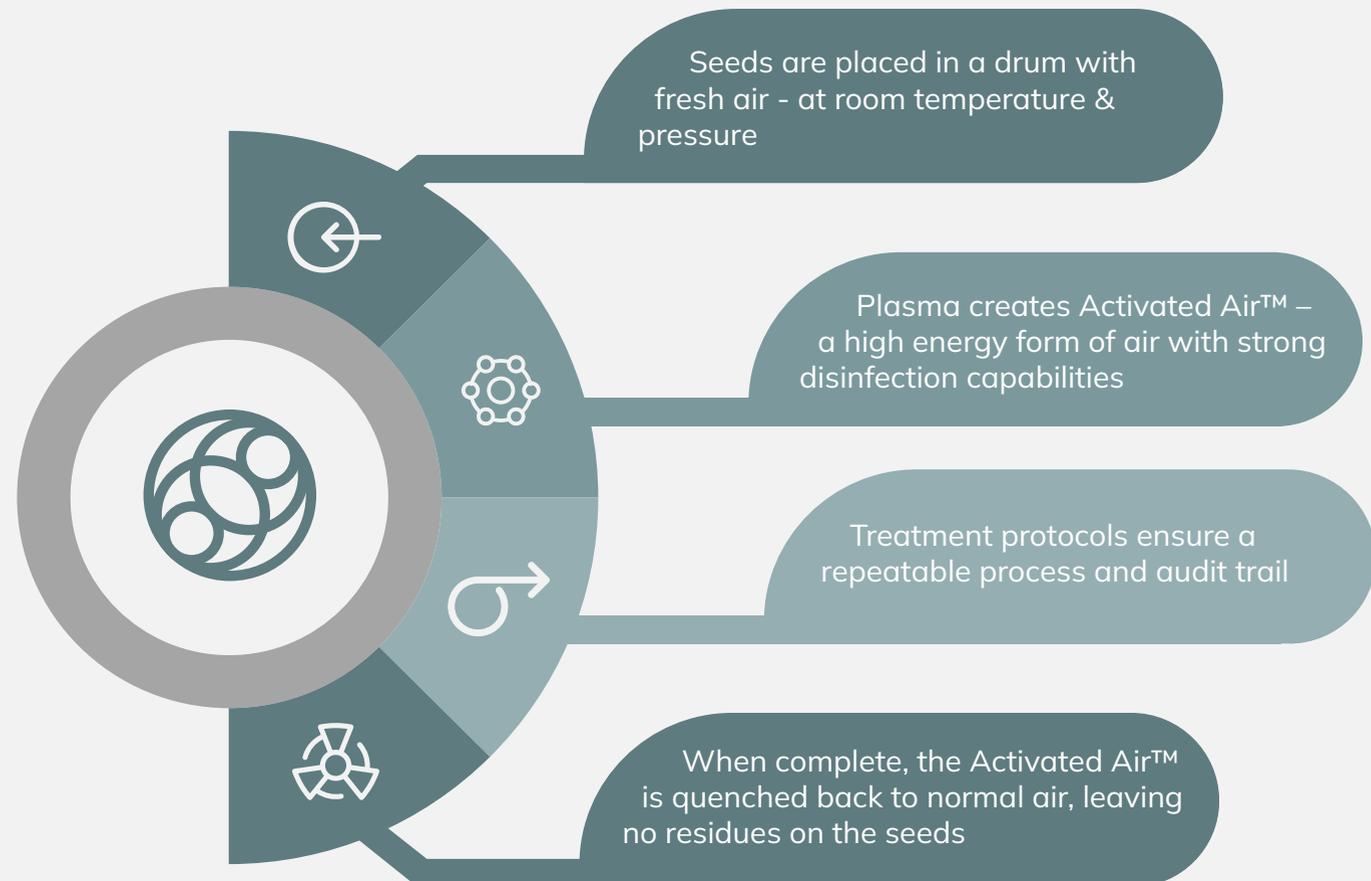
**100%**  
FUNGAL REMOVAL

## The AURORA Activated Air™ Treatment Process

Aurora systems use the power of nature to boost seed health – simultaneously killing pathogens and improving germination. Using the same principle as lightning, electricity is used to create Activated Air™ – a high energy form of air which fuses incredibly strong disinfection and nitrogen-fixing capabilities.

Aurora systems are drum-based treatments – similar to priming and treatment drums found in every seed processing plant. Seeds are loaded into the drum and then exposed to Activated Air™ which is a completely dry process. This treatment eliminates any pathogens and boosts the overall seed health.

For vertical farming we have developed smaller Aurora systems which can treat seeds on-site as required – processing small batches just as they are required, ensuring that no pathogen can enter the controlled environment.



## Aurora-Z10

Our entry level system; the Z10 delivers seed disinfection using only Activated Air™. It processes up to 2 litres of seeds per batch, and is ideal for specialist and high value crops – or for developing protocols for use on one of our larger machines.



### No Chemicals

The only things that go into the drum are seeds, air, some electricity... and a lot of technology. This is a physical process compatible with organic farming. And with no residues, it is ideal for fast-growing crops and salads.



### No Water

Every biologist knows that you really shouldn't get seeds wet – or hot. Unlike chemical processes or hot water dipping, we use a completely dry process – and the seeds remain at room temperature, resulting in better seed vigour.



### Low Energy

Some customers love the green credentials; but the finance department will love the energy cost, which is an order of magnitude less than other non-chemical alternatives like hot water dipping.



### Auditing and Traceability

Aurora systems use predefined treatment protocols that are recorded to the cloud providing the farm operator full transparency and traceability from seed supplier to salad.



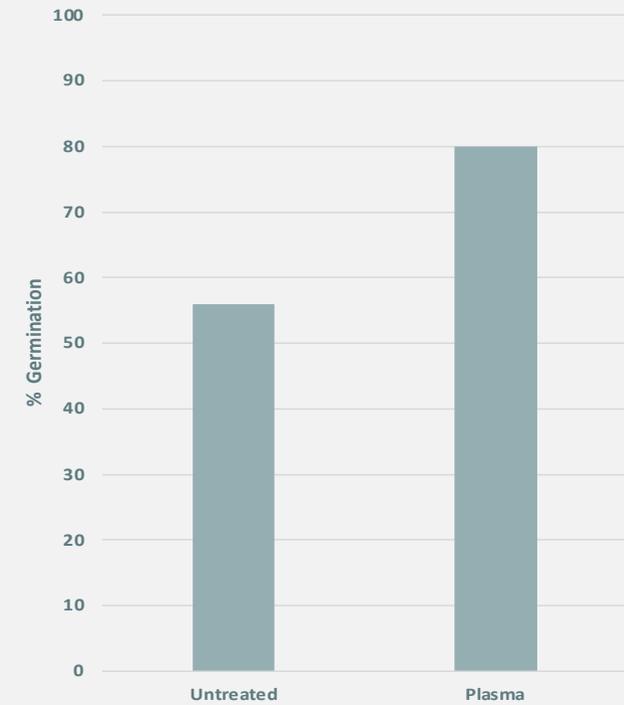
Aurora Z10



## Boosting Seed Health

Results speak for themselves. Peas are famously difficult for vertical farms due to their traditionally high pathogen loading.

In trials, 62% of commercially-sourced pea seeds came into our labs carrying significant fungal load. Once treated, no fungus was detected. Germination increased from 56% to 80% at day 2 – a 24% increase.



## Engage With Us

Working with leading vertical farms, we have developed a trial program to demonstrate the value of our approach to bio-security and seed health for Controlled Environment Agriculture.

The Program Comprises:

### Seed Evaluation Trial

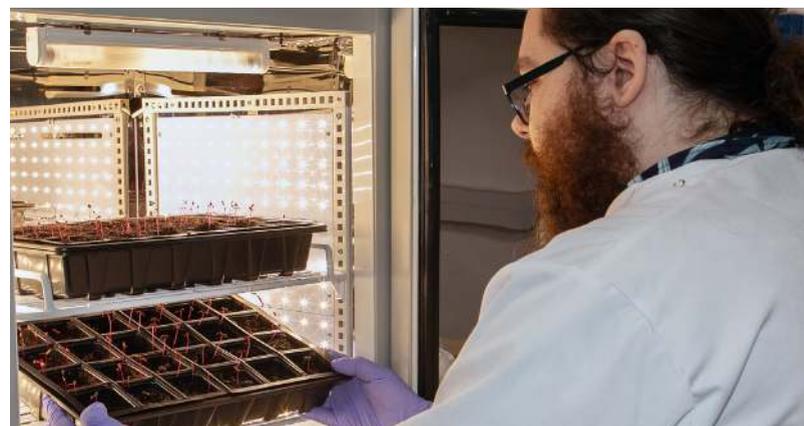
- Stage 1 - Your seeds will be processed at our laboratory where we will provide you a report outlining the results of pathogen removal and improved germination rates.
- Stage 2 - The treated seeds will be returned for you to test in your own growing trials and added to the report.

### Equipment Specification

Following the results of the trial we will then recommend the best model of machine for your operation. Our entry level machines are:

- Aurora-Z10 – designed for Vertical Farms and specialist labs, the Z10 can process up to 2 litres (approximately 1kg) of seeds per batch. This is available on an installed full-maintenance package.
- Aurora-Z10M – for specialist high-value seeds, the Z10M uses “mini-drums” inside the Z10’s treatment chamber to load up to 9 separate batches of seeds – with a maximum of 9x 35g seed batches per treatment.

We also offer a range of machines capable of processing larger field crops.



**We're offering the next generation in seed treatment processing – cleaning pathogens from your seeds without chemicals or water and increasing germination and productivity.**

**To find out how much our Aurora systems can improve your seed health please get in touch.**

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