



ABUNDANT  
SEEDS

STAKEHOLDER PRESENTATION  
SEPTEMBER 2018

THE  
DIFFERENCE  
IS  
ABUNDANT

CUTTING-EDGE  
AUSTRALIAN SCIENCE

BREEDING MORE  
VIGOROUS PLANTS

GROWING SUPERIOR  
FRUITS & VEGETABLES





# AT A GLANCE

Australia's only ASX listed hybrid plant breeder.

A unique research collaboration with the University of Sydney's world renowned Plant Breeding Institute.

Exploits new research in molecular biology, plant pathology, agronomy and chemistry.

Breeds more vigorous plants, better suited to Australian growing conditions, which produce superior quality fruit.







# AUSTRALIA'S ONLY LISTED PLANT BREEDER

Established in 2010 to commercialise the horticultural research conducted at the University of Sydney's Plant Breeding Institute in Cobbitty NSW.

Over 4,470 m<sup>2</sup> of greenhouses.

A portfolio of 5 vegetable plants, each consisting of up to 1,000 inbred lines.

I.P. database of 5,000+ plant lines available for commercialization over the next 7-10 years.





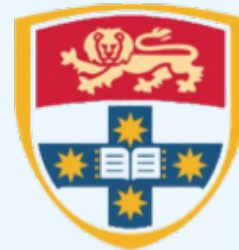
# UNIQUE COLLABORATION WITH UNIVERSITY OF SYDNEY

Over 70 years experience in the agricultural plant selection and breeding.

Widely considered to be one of the world's leading agriculture research centres.

Two dedicated research farms allowing scientists to develop better plants using natural selection.

Abundant Seeds use these resources to develop the best cucumber and tomatoes for Australian farmers and consumers.



THE UNIVERSITY OF  
**SYDNEY**



# ABUNDANT TOMATOES

Bred in low tech greenhouses (following Nabil Ahmad's 'minimal inputs' philosophy), Abundant's tomato plants thrive despite Cobbity temperatures as low as 5 degrees below zero, displaying purple, cold protective anthocyanins.

Grown in the harshest heat - exceeding 50 degrees in Pakistan – Abundant tomato plants persevere.

Ignored for weeks in a box on a shelf, Abundant tomatoes still taste great.









# WHAT DOES THIS MEAN FOR GROWERS?

Over 98% of all vegetable seed comes from overseas - these plants are not designed for Australian conditions, severely handicapping growers' capacity to maximise their return on planting.

Abundant Seeds is bringing expertise back to Australia, developing cucumber and tomato varieties for Australian farmers, providing critical local knowledge and support.

Abundant Seeds also develops varieties to be resistant to Australian insects and diseases.



# WHAT DOES THIS MEAN FOR AUSTRALIA?

There is also growing concern for farmers regarding biosecurity with recent outbreaks in Queensland and Western Australia demonstrating the risks faced when bringing seed in from overseas.

Abundant Seed not only develops better breeds of cucumber, but breeds and grows seeds in Australia for domestic sale, reducing this risk.

Moreover, every Abundant Seeds cucumber and tomato eaten supports another university student studying agriculture and embarking on a meaningful career in Australian agriculture ...helping to secure the future of Australian agriculture.





# WHAT DOES THIS MEAN FOR CONSUMERS?

Consumers are increasingly interested in the provenance of their food. There is a growing appetite for food traceability. Abundant Seeds is passionate about the traceability of its produce and offers full transparency from basic research through to plant breeding at the University of Sydney's Plant Breeding Institute, to local growers, and finally to the plate.

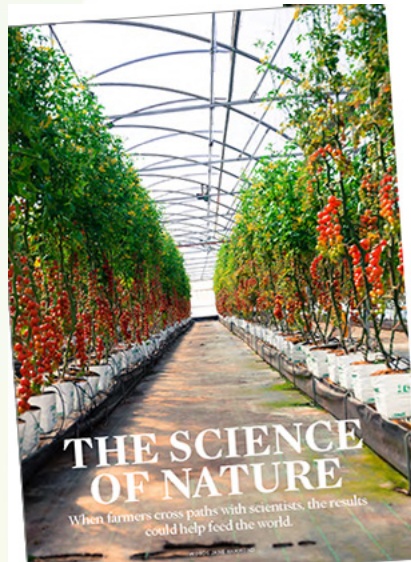
## Abundant's cucumbers

are made for the Australian palate - the skin is thinner giving the cucumber a sweeter taste. The cucumber is slightly ribbed with uniform colour from end to end.

## Abundant's cherry tomatoes and mini heirlooms

are in a league of their own; sweeter and more visually appealing, in every shape and colour under the sun - recognising that we eat with our eyes as well!

# BUT DON'T TAKE OUR WORD FOR IT...



Agriculture 127



**O**ne sign is the hybrid vigor that is the result of the cross between two different genetic backgrounds. In fact, it's breeding, which is the science of crossing two different genetic backgrounds to create a new one. In fact, it's the science of crossing two different genetic backgrounds to create a new one. In fact, it's the science of crossing two different genetic backgrounds to create a new one.

**An F1 hybrid is a first-generation plant-line in order to achieve certain desired characteristics**

Agriculture 128

**Farming in Australia is a tough business and any input which creates value, like hybrids developed for our environment, is held in high esteem**

**THE SEEDS OF SCIENCE**

Two of Australia's major research institutions, the University of Sydney and CSIRO, collaborate with Abundant Seeds to develop new varieties of high-value food crops and hybrid vigor in order to feed the growing population in Australia. This is a key area of research for the global agricultural industry.



# GROWER FEEDBACK #1 WINTER CUCUMBERS

GROWER: NSW - Low tech grower, sawdust single bags - Approximately 7,000 plants per cycle.

EXPERIENCE: head to head comparison with the leading variety - 50/50 row split - identical growing conditions and management.

Yield data early September 2018.

## OUTCOME

“Abundant’s plants are healthier”

“Next winter the full crop will be Abundant”

## GROWER OBSERVATIONS

Abundant’s plants produced better quality fruit

- darker
- smoother texture
- more uniform colour
- better shape with a more rounded stem end
- more uniform length

Abundant’s cold tolerance was dramatically better (in an area where cold strike losses of up to 40% have been experienced)

- minimal fruit cold strike
- no evidence of plant stress despite 2 degree temperatures as long as there was some warmer weather
- no fruit abortion
- consistent vine growth through cold periods

No sign of root disease in the Abundant plants

- vigorous growth and fruit production in plants of the same age as competitor plants, some of which died

Abundant plants showed equal or better auto pruning

- required less pruning as the plant aged

# GROWER FEEDBACK #2 WINTER CUCUMBERS

GROWER: NSW- Low tech grower, sawdust single bags - Approximately 10,000 plants per cycle.

EXPERIENCE: one full greenhouse of Abundant cucumbers - comparison with the leading variety in other greenhouses - same growing conditions and management.

## OUTCOME

“Abundant’s plants are more suited to my growing environment”

“Next winter the full crop will be Abundant”

## GROWER OBSERVATIONS

Abundant’s plants produced better quality fruit

- better colour
- better shape with a more rounded stem end
- more uniform length

Abundant’s cold tolerance was substantially better

- dramatically less fruit cold strike
- consistent vine growth through cold periods in (at times ice covered) unheated greenhouse
- no evidence of cold stress in the plant

In the early stages, Abundant plants were narrower in the stem, making them easier and less time consuming to train



# GROWER FEEDBACK #3 SUMMER CUCUMBERS

GROWER: NSW - Low tech grower in large slab cocopeat bags - 6,800 plants per cycle.

EXPERIENCE: A full crop of Abundant cucumbers - planted late

## OUTCOME

“Will grow only Abundant cucumbers again next summer”

## GROWER OBSERVATIONS

Able to pick for 14 weeks despite planting late

Abundant’s plants produce better quality fruit

- more uniform colour
- every box picked was first grade fruit

Abundant’s plants tolerated heat stress in an unseasonably hot summer

- no fruit abortion
- no signs of heat stress

# GROWER FEEDBACK #4 MINI CUCUMBERS

GROWER: SA - Low tech in the ground grower - Growing year round - Approximately 7,000 plants per cycle - Grows and packs mini cucumbers for the Adelaide market.

EXPERIENCE: Now in the fourth year growing Abundant mini cucumbers - Year round planting - Comparison with previous variety

## OUTCOME

“With the competition you might pick 5 fruits per node but only keep 3 that meet spec. With Abundant, you might only pick 3 but they all meet spec so you aren’t handling fruit you can’t sell.”


## GROWER OBSERVATIONS

Abundant’s plants produced better quality fruit

- better colour
- better shape
- more uniformity

Abundant’s plants have more vigor

- sufficient vigor to train back down a second string and still pick fruit meeting spec

Two cucumbers are shown side-by-side on a speckled countertop. The cucumber on the left is labeled 'Market Leader Fruit' and the one on the right is labeled 'Abundant Fruit'. The 'Abundant Fruit' is darker green, smoother, and has a more rounded stem end compared to the 'Market Leader Fruit'.

Market Leader Fruit

Abundant Fruit

Darker

Smoother texture

More uniform colour

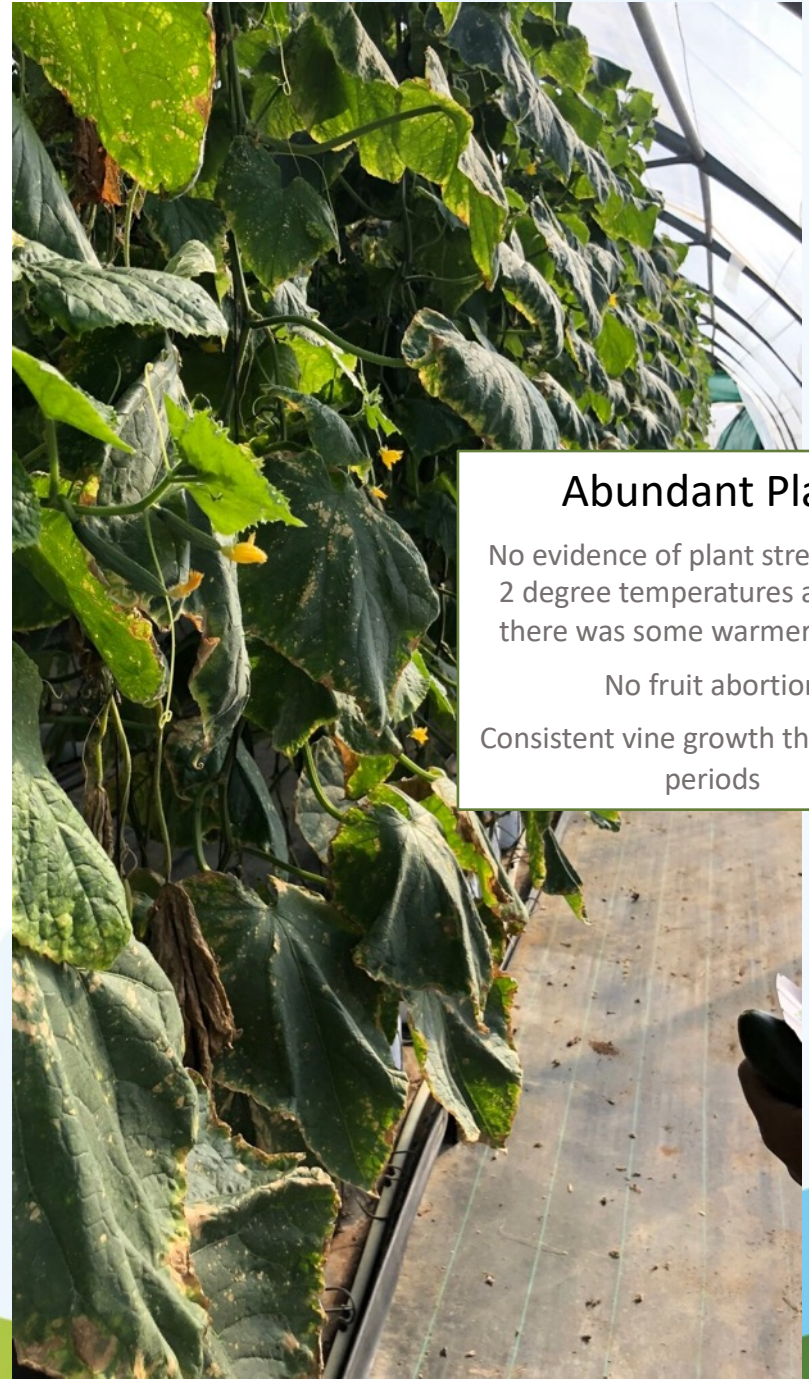
Better shape with a more rounded stem end

More uniform length





Market Leader Plant



Abundant Plant

No evidence of plant stress despite  
2 degree temperatures as long as  
there was some warmer weather

No fruit abortion

Consistent vine growth through cold  
periods





**Market Leader Fruit**



**Abundant Fruit**  
minimal fruit cold strike



# ABUNDANT SEEDS

THANK YOU

## WWW.ABUNDANTPRODUCE.COM

Unit 23, 376-380 Eastern Valley Way  
Chatswood NSW 2067  
tel: +61 476 201 056

## CONTACTS

**Tony Crimmins**  
Managing Director  
mob: +61 414 997 968  
email: t.crimmins@abundantproduce.com

**Tim Dohrmann**  
Investor and Media Enquiries  
mob: +61 468 420 846  
email: tim@nwrcommunications.com.au