



# a 'Round The Traps'

October 2016



FERTI-TECH

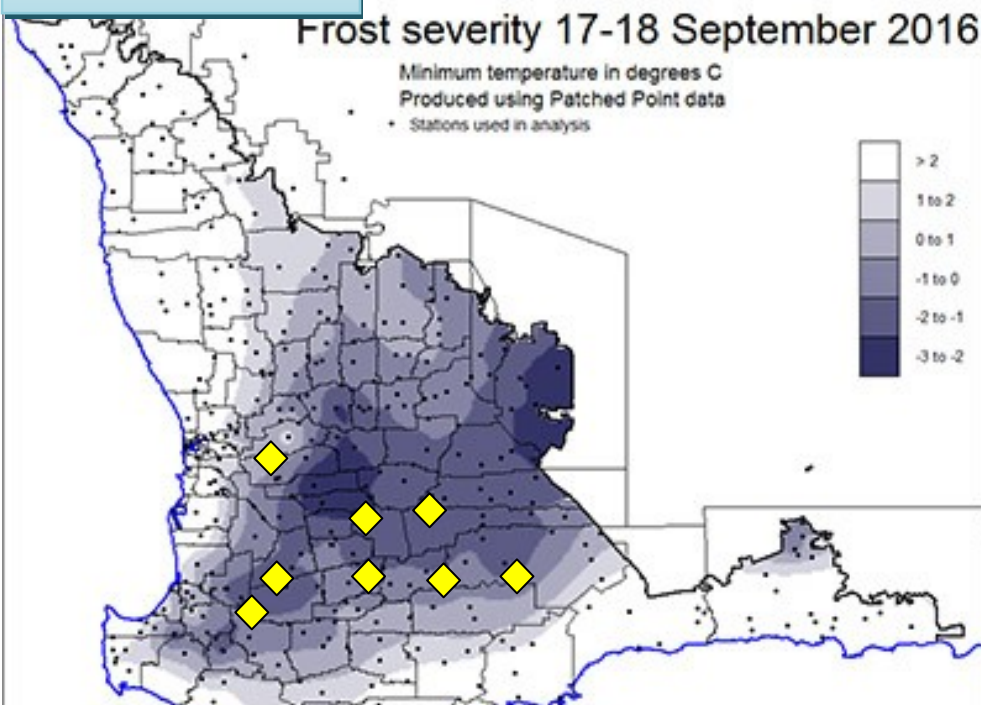


**FROST RESISTORS!**

Visit [www.fertitech.com](http://www.fertitech.com)

Frost severity 17-18 September 2016

Minimum temperature in degrees C  
Produced using Patched Point data  
• Stations used in analysis



From: *GRDC Tips and Tactics 'Managing Frost Risk'*, Map Image: *Fiona Evans, DAFWA*.

## HOW DOES THE FERTI-TECH CSA PROGRAM DODGE CLIMATE BULLETS - LIKE FROST?

First of all; from the outset we didn't escape entirely – we did get some low-level 'shrapnel-damage' but we didn't get shot. Also excluding the obvious timing issues – Most of our growers were all within 1-2 weeks of their neighbours sowing. We were right into flowering and early booting as well when the series of frost's hit. Shallow top soils were common for us, low-lying areas too - all in the 'danger-zone'. Last year we saw a lot of districts haying-off long before the CSA Programs did; this year we are surviving water logging across the East and now we dodged a hell of a lot of frost in the West; when all the surrounding areas didn't. How?

**Principles First** – What conditions enable plants to resist freezing? Generally speaking they are the same ones that build WUE and better balanced soil chemistry – carbon-activated soil fertility translating into key forms of plant nutrition enabling a robust resistance. High-Brix (complex sugars) status is very important; as are trace elements and a balanced growth profile enabling high levels of silicon, calcium and potassium inside a thicker-stem cellular structure. Low growth-related stress but a high-energy status with balanced-growth is a key. First mistake is normally made at sowing with a basic NPK that cannot meet the real 'needs' of the crop. Then susceptibility is compounded by the follow-up fertiliser – usually 100kg of Urea or UAN that waters down the sap immediately; throws nutritional balance out the window and you roll the dice. Maybe the frosts will come while the crop has lost an 'ability-to-resist' – or maybe they won't. Nitrogen isn't the enemy – the real enemy is the arbitrary, market-pushy and shotgun uses of fertiliser as though it was some sort of magic fix-all. Include the so-called 'Frost-Fixers' in a bag or bottle as well. Get yourself iron-clad crop insurance for that claim!

**REMEMBER – Principles First. It's not about high-levels or 'bad-luck' timing of NITROGEN before the Frost Hits. Inside a CSA Trial Plot, Dans at Dumbleyung WA a 200L UAN Application remained UNAFFECTED!**

## LARGE AREAS OF W.A. BADLY FROST-AFFECTED

### GRDC Crop Susceptibility Comment –

Cereals are the most sensitive of the winter crops to frost and yield losses from frost can occur from damage during and after flowering and at the early stages of booting.

Canola and pulses are at the highest risk of reduced yields from frost during the period from early flowering to late pod growth, but most yield losses occur after flowering and during early seed fill. Frost damage in all crops can change with soil type, aspect and elevation, so it is advisable to check plants in different parts of an affected paddock.



### CSA PADDOCKS

#### LITTLE OR NOT AFFECTED ASSESSED AFTER 4 WEEKS

- BOYUP BROOK
- YELEARING
- YORK
- DARKAN
- DUMBLEYUNG
- HYDEN
- LAKE GRACE
- LAKE KING



FROST



FROST

NO FROST