

# salinity - the benefits of DELTA technology



## The DELTA water treatment technology combats salinity in irrigation water.

### DELTA prevents:

- > Leaf burn
- > Poor plant and crop yields
- > Plants from becoming yellow and dying
- > Deterioration of soil structure
- > Irrigation system corrosion
- > Soil salinity

### DELTA results in:

- > Greater productivity
- > Greater potential for crop germination
- > Healthier and more productive livestock
- > Irrigation systems running more smoothly
- > Reduced soil salinity

## CASE STUDY

DELTAwater solutions is achieving long-term results for Bundaberg fruit and vegetable grower Godfrey Priebe, who has a message for DELTA staff after using a 100mm Grade-3 conditioner for his irrigation crops for the past decade.

***"It works so well there is no way I'm giving it back. In fact I wouldn't even sell it back to them if they asked me to," he says.***

Godfrey, who grows fruit and vegetables including tomatoes, capsicums, watermelons and zucchinis on three farms in Bundaberg district, says the influence of his DELTA conditioner is improving his crops every year. And has done since he installed his DELTA system in the mid 1990s.

"It's still working, that's for sure. In fact we've just harvested capsicums in a spot I would never have dreamed of growing capsicums before because of the high salt content in the soil," he says. "Capsicums don't like high salinity and our irrigation water is up to 7200EC. Yet they did well. When we put capsicums in before the DELTA we lost the lot and have never been game enough to try again until now."

### **Problem**

*High salinity (Class 5 Salinity with an Electrical Conductivity of 7250uS/cm) in water supply led to poor-quality crops and fruit and in some instances, no crops or fruit.*

### **Solution**

*DELTA water analysis revealed high salinity and recommended installation of a 100mm Grade-3 DELTA.*

### **Result**

*Crops including tomatoes, capsicums, watermelons and zucchinis thrive on DELTA-treated water year after year.*

## CASE STUDY

### DELTA transforms WA fruit and vegetable crop

Geraldton's Allen Espinos reckons the only difference between a dead melon and vegetable crop and his now-thriving one is the DELTAwater Solutions technology.

The WA fruit and vegetable grower has four and a half acres dedicated to growing tomatoes, watermelon, rockmelon, corn and sugar cane. The tomato bushes are groaning under the weight of fruit and his melons are running wild.

And he attributes it all to the 100% Australian DELTA technology installed in 2012 to condition his harsh bore water.

***"It's doing a brilliant job.***

***It's continuing to blow me away."***

The grower, who sells at local market stalls, was on the cusp of turning his back on growing crops before he installed his DELTA water treatment system. Irrigation supply from nearby Chapman River had dried and water from a bore he then sank was high in minerals and salt and killing his plants.

"There was too much salt and acid in the bore water, it was just shocking," Allen says.

"The first crop I put in was 8000 watermelons and they turned up their toes and within four days the crop was gone. The tomatoes went down as well, turned up their toes too and it took about two weeks for them to die. That's when we started to look at DELTA."

DELTA's local agent checked Allen's bore supply, reporting it was one of the worst samples he'd tested. Test results showed Total Dissolved Solids (TDS) of 5000 parts per million (ppm). Vegetables can only tolerate up to TDS 500ppm. The chloride levels in the water were 2040ppm. Chloride levels of 100ppm and above cause leaf burn and stunted growth.

He installed a DELTA Heavy Duty unit, custom made for water that was unusable in the past due to extremely high mineral content, about a metre from his bore.



"The water coming from the bore was quite murky, but after they put the unit on, what comes out of the bore now is crystal clear. I gave the ground a couple of good soakings for two days, then planted seeds and within three days the seeds popped up and they've never looked back."

***"I've got growth in watermelons like never before. The growth is up to 600mm deep and just a mass of vines. It's just that healthy and, quite simply, it's the DELTA that's changed it."***

It's not just the melons that are responding well to the treated supply. Allen and his wife Mai are having to cut the tops off tomatoes at 1.5 metres and turn them down in an effort to control their growth.

Allen grows his melons and vegetables chemical-free and sells them at market stalls around town. Buoyed by the success of their DELTA-treated water, they've put more acres under crop.

***"This technology is just brilliant. I can guarantee they work and I can show anyone around the area what it's done to my farm."***

As well as saving his livelihood and his plants, the DELTA technology is also saving him maintenance. With the unit installed, he no longer has to waste hours cleaning out his irrigation system. Drippers blocked by mineral build-up are now largely a thing of the past.

"The holes used to keep silting up and I'd have to put acid through to wash out the lines. Now there's virtually no maintenance at all."