

# Olives and bushfire

*While as an industry we've been incredibly lucky overall, the catastrophic fires across Australia over recent months have impacted olive growers and producers in many regions, and to varying degrees. Some have lost trees, along with stock, plant and equipment; some this year's ripening crop from heat stress; while others have spent sleepless nights pondering the outcome of fruit blanketed in acrid smoke. Unfortunately, it's likely we'll see similar fire seasons into the future, so Olivegrower and the AOA have put together a collection of user-friendly information – both expert and practical peer experience – providing a heads-up on what to do and how to do it should you experience a bushfire in your grove.*

## Grower experiences

### Woodside Farm: fire damage to 4500 trees

On Friday, 20 December 2019, a day of catastrophic fire danger across South Australia, a tree branch fell on powerlines at Cudlee Creek, 25km north-west of Ron and Ethne Baker's Woodside Farm grove.

Ron said the fire arrived around 1pm as a spot fire, which spread rapidly.

"At the same time the forecast increasing winds and blustery directional changes occurred, contributing to a more severe burn," he said.

"We were unable to contain it with our 2000-litre spray unit but we did defend the house, the main sheds with the machinery and the workshop, all of which had functioning sprinkler systems.

"It kept us busy until the evening and I had no idea how far it had gone."

On assessing their losses, the Bakers found that around 4500 olive trees had been impacted.

"As it was a grass fire not a tree crown fire, they were heat affected rather than destroyed, the leaves brown and dead but the trunk and main branches okay," Ron said.

"We also had 20 cattle dead, with another 43 to die or be euthanised, leaving 10; and we lost two sheds, around 9kms of fencing, more than 300 large round bales of meadow hay and all the pasture."

#### Water pressure

With time of the essence if they were to save the damaged trees, the Bakers' immediate concern was to get water back onto the grove.

"That's difficult when there are just two business days until Christmas and businesses such as the (irrigation manufacturer) Netafim factory is, as expected, closing down for the break," Ron said.

"It was an anxious time. It was difficult to even speak to anyone regarding drip line, as the local irrigation business was also under pressure: the fire burned through more than 23,000 ha and a third of the Adelaide Hills

vineyards were impacted.

"Meanwhile the weather remained very hot, not good for burned olive trees without water. We busied ourselves with repairing the mainline and sub-mains, replacing burned valves and filters, and fretted about getting drip line."

Until 10 days later, when both a cool change and a small army of helpers arrived.

"Our spirits were boosted when 20 members of Olives SA arrived at the farm on December 31," Ron said.

"By mid-afternoon we'd pulled up 45kms of dripper tubing and dug out 165 pairs of risers, in preparation for connecting to the new tubing. Its arrival date was still unknown but it was a relief to get started on the restoration, also knowing that more help was on offer if we needed it.

"New Year (my birthday) came and went



Most of the 5000-tree Woodside Farm grove was burned in the December fire, along with 45km of irrigation piping.



The Bakers coppiced the damaged trees at 5ft to enable easy access for management of regrowth.

without much enthusiasm, as did Christmas, and we were agreeably surprised on January 3 to receive a call advising that our dripper tubing was to be delivered on the following Monday. Netafim had continued running one machine with a crew who gave up their holidays, and it meant that by Friday the dripper system was all in and running.”

**Cut and mulch**

With water restored to the grove, the Bakers had to decide what to do with the severely heat-affected trees.

“We knew the fire would stimulate shooting over the whole tree, and some of this was already evident. Untrimmed, the olive trees would be unmanageable: most shoots would be at the top and they’d need an early severe prune,” Ron said.

“So we cut them all off at 5ft (150cm), using our circular saw attachment on the front end loader of the tractor. We had Gallards follow on with a large mulcher, and did the job in one and a half days. “Perhaps they should have been cut higher, which would be an option for a few trees,

but at 5ft all of the shoots can be managed from the ground as they regrow. Selective reshooting will go on for two years if we have a good vegetative response, and we should get a crop in the third year.”

**Continuing care**

Ron said the next focus will be looking at the soil in the grove, “as the microbiota may need some help after the fire”, with a Field Day at the farm planned by Olives SA in July to review progress of the grove and “see what lessons there may be”.

**Rio Vista Olives: fire damage to 200 trees**

Rio Vista Olives owner Jared Bettio was another of the South Australian growers affected by the Christmas/New Year fires. Jared and his wife Jaqueline have 600 trees across two separate groves, one in the Murraylands region and another in the Adelaide Hills near Mt Torrens: the latter was also in the midst of the devastating Cudlee Creek fire.

**Forward planning and fast action**

It impacted heavily on his 200-tree Manzanillo grove paddock but, thanks to good preparation and fast action post-fire, he’s hopeful for a solid recovery.

“All the signs were there so I watered heavily in the couple of days leading up to the fire. I’d normally do 4-6 hours but I did 24 hours because I knew that if I could get the water on the ground, the chances of them surviving was greater,” he said.

“It meant the ground underneath was really wet and, while some got scorched and browned off completely, it did save others. I would have lost the lot otherwise.

“Then straight after the fire we pulled the burned irrigation out and replaced it so we could make sure the soil moisture didn’t drop. The burn happened Friday night, on Monday we got last of the spot-fires out and the new irrigation on-site, we worked from Tuesday to Thursday to install it and on Friday we watered again.

“It meant a lot of long hours but ensured the grove had its usual routine of a Friday-to-Friday water, along with a fertigation straight

**Within two weeks Rio Vista’s trees were shooting, with substantial growth visible after three weeks.**





Irrigation across the Rio Vista grove was replaced immediately to ensure adequate soil moisture was maintained.

away to give them a boost. That was also to encourage the micro-organisms in the soil to regenerate, because they would have got a hit from the fire too.”

### Then slow and steady TLC

From there, though, Bettio backed right off and is taking the rest of the rejuvenation process much more slowly – and very carefully.

“I’ve just left them alone for a while, as I didn’t want to traumatise them too much by cutting them back yet. Three weeks later they’re starting to re-shoot strongly,” he said.

“We’ll wait to see where the regrowth is happening and then bring them back to the four main branches. We’ll chop them back, keep the water up and really stimulate re-growth with a bit more nitrogen to get good leaf cover back. We’re not going to get fruit on most of them, so we’ll be working on getting a solid amount of tree structure to fruit on in the future – although some I’m hoping I’ll get a small amount of fruit off still, so it’s a bit of a balancing act.

“But I’ve got each irrigation line isolated, so I can do the rows that got burned separately to ensure they get what they need – which is obviously a lot more than the others.

“From here it’s really about careful monitoring and providing the trees with the best conditions to regrow their canopy.”

*We checked in with Bettio just prior to sending Olivegrower to print and he said the Rio Vista grove’s recovery is progressing well, boosted by an unseasonal three inches of rain on January 31-Feb 1. The new shoots are lush, green and now well over a foot long, and the trees are “looking pretty good”. Great to hear!*

# TORNADO & PUMA OLIVE HARVESTERS FOR SALE.

IN STOCK NOW FOR IMMEDIATE DELIVERY. ONE ONLY OF EACH – DON’T MISS OUT!



**PUMA NEW MODEL**

**\$39,000.00 plus gst**

The PUMA is an integrated vibrating device which operates using a reversible steering console tractor. This combined unit, powerful and easy to handle with four-wheel drive capability, provides extraordinary stability, even on steep land. The device is easy to disassemble and the tractor is ready for other applications. PUMA features include:

- » low centre of gravity, wide wheel track, four wheel drive, optimal

- » balance and reversible console
  - » telescopic arm with double extension - working distance of up to 4.5m
  - » telescopic arm movement up to 80° - work height of 4m
  - » lateral, vertical and tilt movement of vibrating head
- The PUMA comes with a fitting for the bottom-up umbrella RMA-1.



**TORNADO DEMO MODEL**

**\$12,000.00 plus gst**

The TORNADO is a vibrating device with up-to-date design and innovative features, designed and produced to harvest olives. Remote-controlled operation permits the operator to be closer to the trees and position the vibrating device in the best way.

The vibrating head, with its clamping device and patented suspensions, has been designed to vibrate the trunk and branches to achieve a high yield fruit harvest while avoiding any damage to the tree bark.

The self-contained unit couples easily to the three-point linkage of the tractor. Its versatile design allows the TORNADO to be used on small tractors.

**BOTH HARVESTERS COME WITH AN UMBRELLA**

Ph: (03) 9484 7948 – Fax: (03) 9484 7940, 377-379 Bell St, Preston VIC 3072 Email: sales@costanteimports.com.au

## Campo de Flori: radiant heat damage

Lisa Britzman and David Peck were among a number of Tasmanian growers caught up in last year's Huon Valley fires, which burned for weeks and covered vast areas of the region south of Hobart.

She said that while the Campo de Flori grove wasn't burned, the trees were substantially impacted.

"Our olives were just setting fruit when the fire started and we did have a loss of crop," she said.

"We were actively defending our property for six weeks from the oncoming fire, which ended only 700m from our orchard. The olive trees survived, but the fruit set was dramatically impacted and we observed many small olives on the ground."

### Post-fire care

Britzman said the trees had been badly singed by radiant heat from the intense fire.

"They were dried out, and sat in smoke for a good six weeks. The leaves were turning brown and dropping, and we didn't know if they would make it," she said.

"There were still a few olives on there but we were at a loss at what to do for them except get as much water to them as we had left. David hand washed each tree individually to get the smoke and ash off, and then foliar sprayed liquid humates."

### ... and outcomes

The nurturing worked – on the olives at least – Britzman said.

"Unfortunately, the lavender was completely toast and the saffron made a poor showing last year. There was so much ash in the air that it could have changed the pH of the soil, so we've been doing a lot this year on just bringing the soil back," she said.

"But the olives are looking the best they ever have. We've already had three bush fires in the area this year, one only 750m from the orchard, so we're just hoping nothing happens between now and harvest."

### Lessons learned

Britzman said it was an incredibly tough time to go through but they've taken what they can from the experience.

"We were in the fire for a good six weeks, so immediately afterwards we were recovering from the shock of it, then trying to catch up on six weeks of lost work," she said.

"It was an interesting time, with a lot of lessons learned. Like do you have a generator if the power poles go down? We left the irrigation going 24/7 to keep things wet: we have two petrol fire pumps and irrigation which runs out of our dam, and we had to use a generator, due to loss of power poles.

"And having been in bushfires again this year – although not as severe as last year's – we're taking what we believe to be precautions for this year's crop. We've been building up the soils to keep the moisture and nutrition in, mulching around the trees to hold the moisture in, and keeping the irrigation up to make sure the trees are really healthy. We've put more sprinkler irrigation in the orchard, and kept the grass short.

"Most importantly, we learned you need to be resilient and self-sufficient – and that you don't think about bushfire until it's on your doorstep. But you've got to."

# COSTANTE

imports

## Supplying the Olive Industry





### Tornado Harvester - Australian Distributor

- P.T.O attachment to tractor
- Fully remote controlled
- Automatic unloading of fruit, quick, efficient
- Automatic umbrella opening
- Tornado is available complete with tractor



OLIV COLLECT

- netting
- bottles
- caps
- pumps
- pruning tools
- harvesting equipment
- capping machines
- storage tanks





**Vibroli – 12 v**

**Zanon Olive Harvester**  
Max power 500w Attach to 12v battery



**Ph:** (03) 9484 7948 – **Fax:** (03) 9484 7940, 377-379 Bell St, Preston VIC 3072 **Email:** sales@costanteimports.com.au

## www.costanteimports.com.au