

## Silverleaf Nightshade Management Project

### CASE STUDY 1 — Changing the enterprise mix

#### TIPS

Jonathan believes that the important factors for managing the weed on his property are:

Spraying under the windrower, which is getting the weed earlier

High rate of Ally mixed with Roundup OR High rate of Grazon mixed with Roundup and an estercide when spraying over the summer

The seasonal routine of cropping has made it easier to be consistent in the attack on the weed, compared with running stock

Cropping has meant the weed is confined to certain paddocks and is not being spread around the farm by stock

The cropping rotation over the last dozen years or so (alternate wheat, canola) has helped to prevent it setting seed

#### PROPERTY SUMMARY

Jonathan Schoff farms 1100 ha on the Billabong Creek flats between Culcairn and Walla Walla. He currently continuously crops three adjoining properties, one of which is the family farm. This farm had silverleaf nightshade accidentally introduced, probably from hay, in the late 1920's, before the Schoff's owned it. They have been fighting the weed since they purchased that farm in the early 1950's.



Spraying silverleaf nightshade on the Schoff family property in February 1964

Photos supplied by Leon Schoff

Back in the 1950's, silverleaf nightshade was initially treated with arsenic in dieseline, then later sprayed with 2,4,D. Advice at that time was also to cut it each year to prevent seed set, then spray it after; so this was done for three years before it was realised that this was actually spreading the weed.

When Jonathan took over the farm he was conscious of the need to repair or replace fences and other infrastructure if he were to continue running stock, and he was also aware that the stock were spreading the silverleaf nightshade. This, among other factors, influenced his decision to go into continuous cropping. The sheep went in 1999, and in 2002 he got rid of the cattle.

It was at least five years before the enterprise change affected a noticeable decrease in the amount of silverleaf nightshade.

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### CASE STUDY 1

#### DORPERS SAVED A SPRAY

In 2002, in a dry summer, with not much feed about, Jonathan agisted his neighbour's Dorper sheep for a while, and they ate the SLN right down to the ground, saving Jonathan a spray that summer.

The agistment worried Jonathan a bit, as he was concerned about the effect on the sheep, and where the sheep would spread the weed after they left his paddock, since some of the plants had set seed before the sheep went into the paddock.

Stock have been recorded as affected by toxicity due to SLN, but goats will eat it out with no ill-effects. Jonathan also observed that the sheep left the paddock a dustbowl, which was not good for the soil, but concedes that to eradicate the weed there will always be a cost.

He considered that, if he had known how effective they would be, it would be better to have put the Dorpers in before the weed set seed. However, it is difficult to do this, as the plants often flower and set seed over a wide window of time, even in the same area.



Targeted herbicide application is very attractive to Jonathan as a way of continuing to contain the weed

#### LOOKING FORWARD

Jonathan has made a change which means he is keeping on top of the weed for now, but he's not sure for how long. The spraying over summer is very expensive and is containing —but not eradicating — the weed.

Spot spraying in the areas where the weed is sparse can eradicate it in those areas, but timing can be an issue. The technology of the Weedseeker or similar spray setup is very attractive, as it means he could target the right rate of herbicide to each weed, thus making the herbicide budget stretch over more years, while still maintaining its effectiveness.

Jonathan is aware that he can't have an off year - if he allows it to set seed even one year, it will be back to infestation levels very quickly.

This year Jonathan has planted lupins, and will be very interested to see how this impacts on the SLN management regime he has set up with the wheat/canola rotation.