

STATEMENT OF EVIDENCE

DIGBY NOEL STRETCH, of RMB 340 Wandoora Road, Kojonup in the State of Western Australia states as follows:

1. I was raised on my parents' farm known as "Wandoora" which is located 53 kms southwest of Kojonup. Wandoora consists of 1,781 hectares (4,400 acres) which I have farmed for over 30 years.
2. I also run a second farm known as "Wade Gully" which is located 45 kms southwest of Kojonup. Wade Gully consists of 1,093 hectares (2,700 acres).
3. I operate these farms through various family trusts, companies and partnerships.
4. I have been growing various varieties of canola on the farms since 1993.
5. The statements made in this witness statement are my own observations drawn from my experience of farming over the last 30 years and, in particular, my experience in farming canola over the last 20 years.
6. Generally I run between 10,000-12,000 merino sheep on the farms, primarily for wool production.
7. There are some paddocks on the farms which are suitable only for grazing but generally grazing is part of the paddock rotation system which I follow in my farming operations.
8. Generally the rotation system in a particular paddock is 3 years in crop followed by 2 years in pasture. The sheep graze on the crop stubbles in the dry months following harvest.
9. Generally canola is the first crop planted in the 3 year cropping rotation after a paddock comes out of the pasture phase.
10. Wimmera ryegrass is a fantastic fodder for sheep grazing but is a vigorous competitor and a real nuisance in the cropping phases. Wimmera ryegrass can virtually strangle a crop if permitted to get out of control.

11. A wimmera ryegrass plant can also shed an enormous number of seeds when the plant has ripened in the late spring and summer.
12. Since 1993 I have generally grown between 250-450 hectares of canola and between 350-550 hectares of cereal crops on the farms each year.
13.
 - [1] In the early years I was growing conventional canola on my farm and by about 1997 I noticed that herbicides from the FOPS and DIMS herbicide families were failing to control wimmera ryegrass in the paddocks when used in the canola and cereal crop phases.
 - [2] The FOPS and DIMS herbicides are sprayed in the paddocks after the canola or cereal crops had germinated.
 - [3] The chemicals in the FOPS and DIMS herbicide do not damage the canola plants but were in the early years lethal to wimmera ryegrass.
 - [4] In each year from 1997 the FOPS and DIMS herbicides were having an increasing failure rate in killing the wimmera ryegrass which germinated in the canola paddocks after the canola crop was up.
 - [5] Herbicides such as glyphosate, paraquat and sprayseed are sprayed into the paddocks as a pre-emergent herbicide before canola or cereal crops are planted. Glyphosate, paraquat and sprayseed, in my experience, remain lethal to wimmera ryegrass which does not appear to have developed a resistance to those herbicides. Glyphosate, paraquat and sprayseed cannot be sprayed in the paddocks after the canola or cereal crops germinate because these herbicides are lethal to the canola and cereal plants.
 - [6] ...
 - [7] The late germinating wimmera ryegrass plants were surviving the FOPS and DIMS herbicides which I was applying to the conventional canola crops even when I used the strongest application rate for the herbicides.

- [8] It had been my practice to rotate the FOPS and DIMS herbicides but despite this practice wimmera ryegrass became resistant to the herbicides from these groups.
14. [1] I commenced growing TT canola around 1997 and by about 2000 I had ceased to grow conventional canola because of the weed control problems.
- [2] TT canola became available in the mid to late 1990's. TT canola is resistant to the herbicide triazine.
- [3] Triazine enabled us to thin down the wimmera ryegrass in the early TT canola cropping stages for up to 6-8 weeks so long as the soil remained moist.
- [4] Triazine is applied to the soil and remains as a residual herbicide, ie. continues to be active for 6-8 weeks. My practice was to repeat the triazine application 3 weeks after the first application and when the canola crop was in. The triazine could be used pre and post planting.
- [5] As the years went by I observed that triazine became less and less effective in the control of wimmera ryegrass in TT canola crops.
15. I purchased part of the farm known as Wade Gully in 1997 and the balance in 2006.
16. Until I purchased Wade Gully the paddocks had been mostly pasture only, ie. there had been very little cropping on the farm at least for many years.
17. [1] I noticed that triazine was totally lethal to the wimmera ryegrass in the TT canola paddocks in the early years of its use at Wade Gully but then the effect waned. Triazine was, and continued to be, lethal against wild radish and other broad leaf weeds.
- [2] I noticed that with repeated use of triazine in a TT canola paddock significant numbers of late emerging wimmera ryegrass plants were surviving the spray.
- [3] I am unable to estimate what percentage of wimmera ryegrass plants were surviving the triazine spray in the 2009-2010 years but by then the wimmera ryegrass problem in a number of the paddocks had become extremely difficult to manage with triazine and selective herbicide.

18. [1] ...
- [2] In 2009 as part of a trial demonstration authorised by the Department of Agriculture & Food Western Australia I planted RR canola on 50 hectares of the farm. The paddock in which I planted the RR canola had a history of HRWR.
- [3] This was one of the reasons why I wanted to participate in the demonstration trial.
- [4] The Roundup herbicide which was applied to the paddock when the RR canola crop was growing was successful in killing late emerging wimmera ryegrass plants.
- [5] ...
- [6] ...
- [7] ...
- [8] ...
19. [1] In 2010 it became lawful to grow GM canola in Western Australia. In that year I planted 250 hectares with RR canola both in paddocks with a history of HRWR and in paddocks where the wimmera ryegrass had not been showing signs of resistance.
- [2] Approximately 50% of the RR canola was planted in paddocks where there was HRWR at Wade Gully.
20. [1] 2010 was a poor year for rainfall with a late start and an early finish in August. The RR canola crops only yielded 0.9 tonnes per hectare.
- [2] In my experience, if I had not grown RR canola in those conditions the HRWR would have taken over and the alternative crop would have failed.
- [3] As it was I achieved a complete kill of late germinating wimmera ryegrass plants with Roundup spray in the RR canola crop in 2010 (apart from a minor number of plants which were missed by the spray) despite the challenging conditions.
21. In seasons where the first rainfalls come late another benefit of RR canola is that you can put it straight in, ie. it can be seeded dry and, when it germinates following

significant rainfall, Roundup can be applied to the crop to kill the late germinating weeds including HRWR and wild radish plants).

22. Roundup only kills the weeds which it contacts on the day of application. It is not a residual herbicide such as triazine.
23. [1] In 2011 I planted 250 hectares of the farms with RR canola. An excellent yield of 1.9 tonnes "fence to fence" with high oil content was achieved.
[2] ...
[3] ...
[4] ...
[5] ...
24. [1] In 2012 I planted 250 hectares with RR canola.
[2] The rainfall cut off early in 2012 with a dry finish but the canola yielded 1.9-2 tonnes "fence to fence".
25. [1] Generally over the years since 1993 it has been my practice to swathe the canola crops and since 2009 the RR canola.
[2] In recent years I have swathed all of my canola crops.
[3] The swathing machine cuts down the canola crop when the seeds within the pod are 40% - 70% ripe (turning from green to brown) and lays the cut canola down in windrows in the paddock.
26. In my experience the benefits of swathing over direct harvesting are:
[1] It reduces the risk of the seedpod cracking.
As the seedpods ripen they get very dry and brittle, particularly with hot winds and after late rain when the canola crop is left standing (not swathed). The combination of the hot winds and the late rain cause the pods to crack. This causes the seed to spill from the pod. Willie willies can also cause the pods on standing canola to crack and spill seed.
[2] The swathing is carried out before the pods get dry and brittle. The swathed pods are protected in the windrow from hot winds and late rain.

- [3] The swathing hastens the drying of the cut down section of the canola crop which allows earlier harvesting when compared to direct harvesting. This reduces the risk of seed loss.
 - [4] The crop is at risk from the elements whilst it is standing in the paddock so the earlier it is harvested the better.
 - [5] The pods are better protected from thunderstorms, hail and willie willies when swathed and left in windrows than when left standing for direct harvest.
 - [6] I usually swathe the canola between 10-20 November each year and harvest 10-14 days later when it has dried.
 - [7] Swathing brings the harvest forward by about 2-3 weeks. This is an important risk management tool because the crop remains at risk whilst exposed to the elements before harvest. The risk period is 2-3 weeks longer with direct harvesting.
 - [8] In my observation, the majority of canola crops in the Kojonup and surrounding districts are swathed. This has been the case for many years.
 - [9] After a canola crop has been swathed it is left to dry in the paddock. When the cut down section of the crop has dried out it is harvested. The harvester machine collects the swathed crop, thrashes and screens the plant material, separates the canola seed and deposits it into the harvester bin.
27. [1] I have again planted RR canola on my farms in 2013.
- [2] I have not grown any other variety of canola on the farms since 2009. This is to bring down the population of HRWR. I plan to introduce different weed control packages in the next few years.
 - [3] ...
 - [4] A major benefit of growing RR canola is that herbicide costs are reduced in the cereal crop phase in the year following the growing of a RR canola crop because it is not necessary to use a post-emergent spray for wimmera ryegrass.

- [5] Generally before RR canola I had used Hoegrass herbicide for this purpose at a present day cost of \$20 per hectare plus \$10 per hectare in application costs.
- [6] Before RR canola I would also have incurred the costs of 2 sprays with atrazine plus oil with the second spray including grass selective at a cost of \$27 per hectare.
- [7] In an RR canola crop these chemicals are replaced with 2 sprays of Roundup Ready plus ammonium sulphate at a total cost of \$21.
- [8] ...
- [9] These costs savings do not factor in the superior performance of Roundup Ready herbicide in killing late germinating wimmera ryegrass plants compared with atrazine and grass selectives.
- [10] A further benefit of RR canola is that in a season where the first rains come late the RR canola can be planted before the first rain or immediately afterwards in the knowledge that wimmera ryegrass plants which will germinate after the emergence of the RR canola crop will be killed by the application of the Roundup herbicide.

I have read the contents of this my witness statement and the documents referred to in it. I am satisfied that it is correct and that this is the evidence in chief which I wish to give at the trial of the proceeding.

Dated the day of 2013

DIGBY NOEL STRETCH

I, **BRIAN GEORGE BRADLEY**, Legal Practitioner, certify that this witness statement has been prepared in accordance with the Western Australian Bar Association Best Practice Guide 01/2009-2011.

Dated the day of 2013

BRIAN GEORGE BRADLEY