AMENDED STATEMENT OF EVIDENCE

CHRISTOPHER ROBINSON, of C/- Farmanco, Unit 2, 88 Albany Highway, Kojonup in the State of Western Australia states as follows:

1. I am an agronomy consultant employed by Farmanco and I am based at the Kojonup office.
2. I am a qualified Agronomist. I obtained a degree as a Bachelor of AgriBusiness from Curtin University (Muresk) in 2002.
3. I was raised on my parents farming property near Kojonup and I have been involved in farming activity from a young age.
4. I have maintained my involvement in farming to the present day. The family farming business in which I am involved is “Robinson Bros Farming”. The farms consist of about 4,000 hectares near Kojonup. We grow wheat, barley, canola and lupins on the farm. I do occasional work on the farm when my work as an agronomist permits. GM canola and TT canola have been grown on the farms since 2010.
5. I have worked as an Agronomist based in Kojonup since 2003 except for an absence when I was overseas in 2007 and 2008.
6. I was employed as an Agronomist by Kojonup Agricultural Supplies from 2003 until leaving for overseas in 2007.

7. Following my return from overseas in 2009, I joined Farmanco as an Agronomist based at its Kojonup office. I have remained with Farmanco since then.

8. I have been engaged by Michael Baxter as an Agronomist since 2003. This has been an ongoing role to the present time except for the period of my three year absence overseas. I resumed my role as Michael Baxter's agronomist in January 2010.

9. [1] Michael Baxter is one of 50 farmers to whom I regularly provide independent agronomy advice. In 2010 I was providing independent agronomy advice to 35 farmers.

   [2] I visit each client's farm 5-7 times per annum.

   [3] I provide these clients with advice as to which herbicides to use, crop rotation planning, weed management, crop variety selections, fertiliser programmes, soil and nutrition programmes.

   [4] I regularly conduct soil tests on each client's farm and I also take plant samples which are sent off for testing for herbicide resistance.

   [5] I visit the farms prior to crop planting each year, then again when crop seeding is underway, again about 3 weeks after seeding, 2 months after seeding and 3 months after seeding.

[6] I make recommendations to my clients based on my observations of the crop as it is growing for weed, insect and pest management.

[7] I also provide my clients with costs and yield estimates for budgeting purposes.

10. [1] I also provide Agronomist services to about 80-100 additional farmers (depending on the year) through retail stores.

[2] My service to these farmers involves farm visits on the farmer's request and is generally to deal with a specific problem which the farmer has encountered.

11. In the main, my work is carried out in the Shires of Kojonup, Boyup Brook, West Arthur, Katanning, Tambellup, Wandering, Williams and Cranbrook.

12. Wheat, barley, oats and canola are the main crops grown by farmers in these Shires. Sheep farming forms a large part of the farming activity in the Shires. There is some beef farming.

13. It became lawful for farmers to grow GM canola in Western Australia in 2010.

14. Of the independent client farmers to whom I provide consultancy services, about 7 grew GM canola in 2010, about 10 grew GM canola in 2011 and about 12 grew GM canola in 2012. In 2013 15 of my farmer clients have planted GM canola.

15. There are four types of canola plants which have been grown in the Shires in which I work. These are:

[1] Conventional canola which has tolerance to group A and Lontrel herbicides but is now rarely grown because wild radish plants cannot be controlled in a conventional canola crop, as the herbicides which remain lethal to wild radish are also lethal to conventional canola.

[2] Imidazoline tolerant canola. This is known as IT canola and has a tolerance to Imidazoline type herbicides. Wild radish is developing resistance to group B herbicides including AMID and wimmera ryegrass has developed resistance to group B herbicides. Imidazoline is a group B herbicide.

[3] Triazine tolerant canola. This is known as TT canola. TT canola is the most common type of canola grown in the Shires in which I work. Triazine is a group C herbicide. HRWR is resistant to group A and group C herbicides.

[4] GM canola has a tolerance to the glyphosate herbicide. Roundup Ready canola ("RR canola") is a variety of GM canola.

[5] Paraquat and sprayseed are group L herbicides.

[6] Wimmera ryegrass is not resistant to paraquat and sprayseed and these herbicides are lethal to canola and cereal crops.

[7] Paraquat and sprayseed are commonly used as knockdown sprays to kill wimmera ryegrass before the canola crop or cereal crop is planted. This avoids the need to use Roundup Ready herbicide as a knock down and assists to prevent the development of herbicide resistance to Roundup Ready herbicide spray.

[8] Whilst the canola crop or cereal crop is growing more wimmera ryegrass plants will continue to germinate in the paddock (if wimmera ryegrass seeds are present) and it is these late germinating wimmera ryegrass plants which has presented a serious problem to many grain growers.

16. All types of canola have a tolerance to group A herbicides which include clethodim and are used to selectively control the later germinating ryegrass.

17. Weed control management is a vital aspect of modern farming. The following plants are common throughout the agriculture districts of Western Australia: wimmera ryegrass, wild oats, wild radish, brome grass, cape weed and clover.

18. These plants are competitors with cereal crops and canola and will reduce yield if not controlled.

19. Wimmera ryegrass ripens in the spring and releases its seed in the late spring/early summer, ie. around the time cereal and harvesting operations are commencing. The seeds from these plants are spread by wind, animals and water runoff. A wimmera ryegrass plant can produce up to 500 seeds.

20. Wimmera ryegrass is controlled by using appropriate herbicides.

21. [1] Over time wimmera ryegrass populations have developed a tolerance or, in other words, have become resistant to, herbicides which have been used in the attempt to control the ryegrass, including clethodim, imidazoline and triazine. This is commonly referred to as "Herbicide resistant wimmera Ryegrass".

    [2] Herbicide resistant wimmera ryegrass has become a major problem in the Shires in which I work.

    [3] Canola is not a competitive plant. On the other hand wimmera ryegrass is a very competitive plant and will out compete canola for moisture, nutrition and growth. I have observed late germinating wimmera ryegrass when not adequately controlled to reduce crop yields by around 80% in severe cases.

    [4] Furthermore if the wimmera ryegrass problem is not controlled its seed banks will build up on

an increasing basis in the paddock and the problem will become more severe from year to year.

22. The growing of RR canola plays an important role in the control of herbicide resistant wimmera ryegrass. This is achieved as follows:

    [1] The paddock is sprayed with a “knock down” herbicide immediately before seeding, ie. paraquat.

    [2] The RR canola seeding is then carried out by direct drilling.

    [3] The RR canola crop is sprayed with Roundup at the two leaf stage and again at the six leaf stage.

    [4] The RR canola is resistant to Roundup which will kill the wimmera ryegrass and other competitor plants except plants missed by the Roundup spray.

23. [1] Canola is swathed by many growers to reduce pod shattering and canola seed loss to the ground. The canola pod is brittle and prone to cracking when ripening particularly if there is late rain and hot winds. These factors cause the pod to swell and shrink and crack allowing the seed to spill to the ground. Herbicide may be applied behind the swather to control late season germinating weeds, including wimmera ryegrass.

[2] The vast majority of my farmer clients have swathed their canola crops over the past 10 years.

[3] The swathing is carried out when the canola seeds in the pod are turning from green to brown and when the pod is not brittle. Swathing in the Kojonup District is carried out around early November in most years. When swathed the severed section of the plant, including the head is laid by the swather machine in windrows in the paddock.

[4] The swathing causes the canola to ripen evenly across the crop and to ripen earlier.

[5] If swathing is not done, the canola remains standing in the paddock and the ripening of the crop is generally uneven across the paddock and some of the pod becomes brittle as it dries out with further ripening. The pod is then prone to fracture following rain, hail and hot winds and is at risk of spilling seed to the paddock before harvest. Such spillages can be extensive to the tune of more than 50% of the seed within the pod.

[6] I have seen evidence in the field of a standing canola crop being damaged and shattered by the path of a willy-willy.

[7] I have also seen a willy-willy lift swathed canola material high into the air and carry it

hundreds of metres before scattering it over the ground and I have seen canola material hanging from electricity lines running through the paddocks.

[8] Generally, the canola is harvested about two weeks after swathing when it has dried.

[9] The harvester picks up the plant material from the windrow. The plant material is thrashed and screened in the harvester and the canola seed is collected in the harvester bin.

[10] Swathing brings forward the harvest by about two weeks when compared to direct harvesting. This reduces the farmer's risk of crop loss by wind, hail, rain or fire because the canola is removed from the field and not at risk two or three weeks earlier than would be the case if the crop was direct harvested.

24. [1] If the RR crop is grown successfully the cereal crops grown in the paddocks in the years after the RR canola crop are able to grow without significant competition from weeds including wimmera ryegrass. This improves the yield of the cereal crop and reduces herbicide costs.

[2] Wheat, barley and oats are not resistant to Roundup nor is non-GM canola.

25. [1] In my role as Michael Baxter's Agronomist I have regularly conferred with him to formulate his farming plans, including crop rotation

programmes, fertiliser programmes, weed control programmes and pasture programmes. Each year I have visited “Seven Oaks” and “Baxter’s Block” about eight times.

[2] During these visits I inspected nearly all of the paddocks and all of the paddocks in which there are problems including problems with HRWR.

26. [1] The crop rotation programmes are planned months ahead. Commonly at Michael Baxter’s farm the programme for cropping paddocks is year 1 canola, year 2 cereal, year 3 cereal, year 4 canola.

[2] Michael has paddocks dedicated to sheep farming which are generally not cropped.

[3] Paddocks are not turned to fallow at Seven Oaks or Baxters Block.

27. [1] Early in 2010 Michael Baxter informed me that “clethodim” (a group A chemical) had failed to control wimmera ryegrass in certain paddocks including Range and Two Dams paddocks. I mentioned to Michael Baxter that he could grow RR canola in Range Paddock and Two Dams as part of a programme to control clethodim resistant wimmera ryegrass.

[2] I did not recommend that Mr Baxter grow IT canola or TT canola because in previous years clethodim had been applied on some

occasions with imidazoline and on other occasions with triazine but this programme had failed to control the wimmera ryegrass in the Range and Two Dam paddocks.

[3] In the 2005 and 2006 growing seasons I had observed at Sevenoaks that clethodim was failing to achieve a satisfactory wimmera ryegrass kill when applied to TT canola in paddocks including Back Paddock and Silo. About 10%-30% of the ryegrass plants survived the sprays. This was consistent with my experience with clethodim resistance on other farms in the District.

28. [1] A plan was formed with Michael to follow the technique I have described in paragraph 22 above by spraying a knock down herbicide in the paddocks immediately prior to seeding and by spraying with Roundup when the canola crop had reached the two leaf and six leaf stages.

[2] Michael accepted my advice and planted RR canola in those paddocks.

[3] On my visits to Sevenoaks and Baxters Block during the growing season in 2010 I observed that about 30% of the ryegrass survived the application of clethodim to TT canola in the Dog Leg, Hilly, Montys, Silo, Lyalles and Mailbox paddocks. Clethodim was sprayed

on those crops in July 2010 on my recommendation.

29. [1] The decision to swathe the RR canola crop in Range and Two Dams paddocks in 2010 was reached later in the year.

[2] I recommended to Michael that the RR canola should be swathed rather than direct harvested for the reasons explained in paragraph 23.

[3] Over the years I have generally recommended swathing to my farmer clients and had recommended it to Michael Baxter in previous years because it brings forward the harvest and reduces the risk of seed loss or damage to the crop.

[4] In the spring of 2010 there were some late germinating wimmera ryegrass plants in the Range and Two Dams paddocks. I considered that swathing could assist to reduce the amount of seed that these wimmera ryegrass plants would distribute into the paddocks because many of the plants would be cut down by the swather before they set seed.

30. The canola plant is not a preferred food of stock except at the flowering stage when sheep will eat the flower and stem but not the leaves.

31. In my experience canola is easy to eliminate on the farm by ploughing, cultivating, spraying with herbicides and grazing. When dealing with a small number of volunteers, the canola plants can be pulled out by hand, especially in the spring when it is flowering and before it sets seed.

32. [1] I have observed that on Seven Oaks canola volunteers have been well controlled whether the variety be TT or RR canola.

[2] In the paddocks where the canola has been grown I have observed about many volunteer canola plants to germinate after rain in the next season. These have been completely controlled by the application of a knockdown herbicide.

[3] I have observed very few volunteer canola plants outside the paddock in which the canola was grown. Canola is a poor competitor and in my experience volunteer canola plants are inevitably attacked by pests and disease and do not progress to flowering.

33. [1] Generally Michael Baxter has achieved excellent weed control on Seven Oaks and Baxters Block but his main battle is with herbicide resistant wimmera ryegrass.

[2] With the use of Roundup the herbicide resistant wimmera ryegrass problem has been controlled on Michael Baxter's farms to the

effect that it does not affect crop yields in 2012. In the Two Dams and Range paddocks the HRWR has been reduced to the extent that it will not affect crop yields and the presence of wimmera ryegrass has been reduced by 80%-90%. This could not have been achieved without growing RR canola and using Roundup.

[3] In 2010, 2011, 2012 and 2013 at Seven Oaks and Baxters Block the RR canola has been planted into paddocks where there was a significant problem with HRWR.

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 2014

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CHRISTOPHER ROBINSON

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 2014

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BRIAN GEORGE BRADLEY