

**PROJECT:** Compaction Mitigation options for growers in the Albany and Kwinana West port zones (AVP00003-A)

**BIO:**

agVivo provides advice and technical support to WA’s agricultural industries, with a strong focus on agronomy. The team works directly with producers and groups providing expertise for the optimal management of soil, crops, pastures and mixed farming systems, and managing events for agriculture. agVivo has partnered with Revell Science to deliver this project. Both share the goal of providing professional support by drawing on the latest information and science, and developing and applying practical management options. Email: [dean@revellscience.com.au](mailto:dean@revellscience.com.au) | Phone: 0408 904 948

**TRIAL PROGRESS:**

Field demonstration trials to compare different soil compaction mitigation options will commence in 2017. The intention is to continue an existing site at Meckering that is comparing 14 treatments (2016-18) – see table below – and to replicate this site on a different soil type on a nearby farm. Having two sites on differing soil types close to each other will be ideal for future field days and extension activities.

Control	Heli rip	Heli rip + OWP	No treatment in 2016
Deep rip	Heli rip with inclusion plates	Heli rip with inclusion plates + Spader	Delving (Syme) + Spader
Deep rip with inclusion plates	OWP	Mouldboard	
Deep rip + Spader	Heli rip + Spader	Mouldboard + Heli rip	

Additional sites in the Albany port zone are planned, but the locations and treatments have not yet been finalised. A farm tour will also be held in 2017 to allow growers to visit trial sites and interact with other producers who have commenced their own practices, including controlled traffic farming and/or deep ripping from a range of different technologies). The project will also provide the opportunity for growers to discuss the practical aspects of transitioning from current to new management systems to reduce the incidence and impact of soil compaction. Written and video case studies will be also prepared.

**EXTENSION ACTIVITY:**

The project supported a field day at Meckering that involved agVivo and DAFWA (Stephen Davies) at the trial site at the Fulwood’s property. It was a well-attended day, with about 40 participants. The suggestion from farmers to replicate this site on a different soil type was raised at this field day, and we intend to do this in 2017.

**KEY POINTS:**

1. There is quite a lot of activity across regions on various aspects of soil compaction and mitigation of other soil constraints. It ranges from relatively simple demonstrations to more complex research sites, and field days. There is an opportunity to share information and coordinate field days to maximise outcomes across the port zones.

2. Two key practical issues seem to limit the immediate uptake of compaction mitigation strategies: (1) lack of availability, and/or cost, of machinery; (2) uncertainty in where to start in a transition from current practices to new practices – e.g. should controlled traffic be an abrupt transition with large up-front costs, or a steady transition as part of an existing machinery replacement program; which soil constraint should be targeted first, or should a multi-pronged approach be taken.
3. Soil compaction is rarely a single issue. It is part of a wider set of soil constraints, which may include non-wetting, acidity, and nutrient availability. Management approaches need to take this into account.

PHOTOS:

