

Geraldton Port Zone - Opportunities and Constraints

Port Zone	Title	Description	Area	Frequency	Impact /cost
Geraldton	Carbon capture in grain farming	Members would like to be able to access and present positive, truthful, well-written scientifically supported evidence to provide counterbalance to misinformation. To do this, they want the knowledge of what carbon is being produced/sequestered in rotations for example – wheat/barley/lupins and canola.	4.77	4.15	3.42
Geraldton	Promoting farming systems without glyphosate to preserve this chemistry	Roundup resistance is becoming a growing issue, growers are not familiar with alternatives. More extension on alternative chemicals and systems that don't rely on glyphosate.	4.64	2.85	4.21
Geraldton	Seeding gear set-up with particular interest in strip and disc	<p>The strip and disc system has greatly increased water use efficiencies in dry land farming in Victoria which would be a great benefit to WA growers particularly in the northern and eastern parts of the state. If it could add 1t/ha of yield it would be a massive help to grain growers in WA.</p> <p>There is great deal of interest and reports of successful systems using disc machinery. There are opportunities to change machinery to improve water use efficiency etc.</p>	3.76	3.7	3.8
Geraldton	Managing cropping systems with consideration to late breaks to the season and earlier heat stress at the other end, includes heat stress after germination	<p>Management of heat later in the season, late break in the season and shorter growing season. How do we manage this using the current genetics and stuff in the pipeline? What tools can be used?</p> <p>Growers are thinking that 90 day wheats and lupins would be useful. The perennial question is with NVT - are we identifying the right genetics for wheat and lupins in our zone? Growers would like to see at least 2 times of emergence for wheat and lupins on NVT sites in low rainfall areas as well. Without this comparison it is hard to tell how weed and rotations are impacted.</p>	3.68	3.25	3.95
Geraldton	Access to herbicide tolerant pulses, particularly lupins	Geraldton RCSN members want quicker access to new crop varieties, with a particular interest in lupins (and other pulses).	3.93	3.19	3.65
Geraldton	Better agronomy and packages to manage brome grass, capeweed, wild oats and barley grass in the Geraldton port zone	<p>Ability to capture weed seeds at harvest in brome is good but cape weed and barley grass is poor.</p> <p>Management of brome and barley grass is becoming and increasing issue in the eastern end</p>	4.6	4.5	3.8

of Geraldton port zone. Developing a package to control these weeds and manage them long term in the face of developing herbicide resistance and no HWSC options, will be a great investment. Growers in this zone believe that these two weeds will be the biggest cereal problem weed in the next 10 years.

Geraldton	Machinery investment costs seem to be growing and becoming hard to manage	<p>Machinery expense is a huge part of our costs. Bigger programs wear out machines quicker. Need to understand the unit costs?</p> <p>Revisit own versus contract hire. Multiple units or own + contract; as well as the economics around running multiples or one unit.</p>	4	3.18	3.36
Geraldton	Blue lupin control in white lupins	<p>This lack of available blue lupin control is resulting in a drop in the area of white lupins, with growers moving towards growing canola which has increased the incidence of canola diseases and limits our options.</p> <p>Growers in the zone have now seen 2 years without a knockdown due to a later break leading to a decrease in lupin area sown as the concern for blue lupin germination is too high to risk sowing. No other weed controls our time of sowing like this. The issue impacts on mixed farming and total croppers alike. Not only is there no chemical control, there is also no effective mechanical control.</p>	3.5	4.6	3.4
Geraldton	Promoting a positive image about agriculture by upskilling growers in how to talk the language	<p>Out of the social license to farm and rise in activism is there some scope for media training for farmers, grower group staff so we have people in the field to turn to. MLA are doing this and it is something that GRDC could help with.</p> <p>Our access to technology and scientific developments/chemicals are threatened based on perception not fact.</p> <p>We need to farm for the present and future as there are negative environmental effects of going back to old farming practices - wind and water erosion.</p>	4.95	5	4.25
Geraldton	Rotation options in marginal areas including re-evaluating current rotations and inclusion of livestock in these more marginal areas	<p>Better rotation ideas in marginal areas including variations to current rotations. We are interested in looking at short season varieties in lupins, canola, chickpeas etc, as well as revisiting and reevaluating stock in these areas.</p> <p>Provide long-term whole farm benefits. For these growers, by including some rotations/livestock in the farming system, it gives agronomic benefits in canola/cereals, provides risk management options, and provides a disease/weed control break.</p>	3.36	3.32	3.26
Geraldton	Managing farming systems to better manage MRLs	<p>CBH is testing for MRL's and are getting some false positives. Do we need an independent, industry accredited tester? Does there need to be more education on the importance of staying under MRLs? Does GRDC have a role to play with this?</p>	4.8	4.55	3.4

Geraldton	Soil acidity (including lime and gypsum) incorporation	<p>Areas of interest included:</p> <ul style="list-style-type: none"> • Movement of lime down the profile in shallow/rocky soil • Soil constraints on heavier soils – we want the ability to mix lime/gypsum without bringing up too much clay and destroying machinery • What soil structure should we be aiming for in for eg. Sandy soils if we have limed and removed compaction issues. Goals? • Lime incorporation methods need to be further worked on and extended as we are spending too much on lime and only changing surface pH. 	4.2	4.3	3.65
Geraldton	More work needs to occur to deliver better adapted barley varieties in northern agricultural region with agronomy to match	Barley acreage has increased in the NAR with growers hungry for more information on how to better grow barley to a good delivery standard.	3.85	4.55	3.6
Geraldton	Soil amelioration options suitable for a range of soil types in the Geraldton port zone	<p>Cost effectiveness of soil amelioration on different soil types particularly heavier soil types; and the costs and effectiveness of different tillage methods.</p> <p>We are interested in basic soil amelioration options across a variety of soils and different implements.</p>	4.15	4.05	3.65
Geraldton	Compaction and Ripping	<p>Ripping post crop sowing in all crops. How long after germination can we go with various tyne depth and spacing. Perhaps longer in wide row lupin and canola.</p> <p>Compaction - longevity of the different systems after ripping</p>	4	3.7	3.8
Geraldton	Further work and ground-truthing of green on green technology in the northern agricultural region	<p>Sprayer technology around Green on Green is needed so that growers can adopt this technology.</p> <p>"Green on green" technology is a future way to minimise grain residues as minimal herbicide will be applied to the crop.</p>	4.1	3.75	3.2
Geraldton	Weed control during dry seeding opportunities with a focus on pre-emergents	Era of dry seeding - but we somehow need to beat the weeds. A greater proportion (up to 100%) of crops are sown dry but weeds are becoming a bigger issue.	4.4	3	3.6
Geraldton	Management and selection of winter crops to manage crop development better and take advantage of March-April germination opportunities and survive dry periods till winter rains arrive.	<p>There are a number of issues identified:</p> <ul style="list-style-type: none"> • Take advantage of early sowing opportunities. • Time management is better • Compare new quicker winter crops to longer spring crops. • Determine the target flowering window range to minimise heat shock and frost risks and grow crops to hit that date range • Agronomic packages for winter wheat. 	3.5	2	3.1

- Earlier maturing winter wheat variety trails.
- Severe lack of knowledge particularly with our agronomists
- Temperature after rain event can dry seed zone
- Agronomist skill set available in WA, with further knowledge available from Tasmania, New Zealand