Albany Port Zone - Opportunities and Constraints

Port Zone	Title	Description	Area	Frequency	Impact /cost
Albany	A reliable 'safe every year' profitable legume; Profitable break crops and legumes using a systems approach	Better break crops and legumes for: weed control, and to help with disease in LRF zone. Profitable legumes in long term cropping rotations. Too reliant on canola and barley. Work being done on beans, flax and linseed now, but not sure of their fit. Frost is still a risk and impacts heavily on our pulses and legumes.	4.28	4.28	3.72
Albany	Soil amelioration options for a range of issues - knowing when to start with high variability in paddocks	Deep ripping and amelioration effectiveness in duplex soils, forest gravels. Dealing with soil/paddock variability. New mechanical engineering solutions to assist with amelioration/non-wetting issues. Need an understanding of soil type and prioritising ameliorants, including economics and ROI.	3.76	4	4.19
Albany	Improving germination and establishment in non-wetting soils, with particular interest in the use of wetters	Growers want to improve crop germination and establishment in non-wetting soils. This issue is magnified by dry sowing, and soil amelioration is not always an option. Growers are interested in looking at wetters on seed for increasing germination and vigour. Where should different soil wetters be placed, behind press wheel, below, seed, with seed, etc.	3.35	3.81	3.93
Albany	Frost is our biggest limiting issue, particularly for the fear factor. Frost impacts on profits with a large part of the Alb PZ affected.	Frost is still the biggest limiting factor at least for the fear factor. Where to with research? What are some of the biggest learnings we can apply? Have we achieved significant gains from a big spend?? High interest in temperature/Timing/Crop type interactions. Better varieties needed that can tolerate a level of cold. Breeding frost tolerant genetics.	3.55	2.57	8.69
Albany	Development of image analysis tools for use at harvest time to help with a range of issues including weeds, snails, grain quality etc.	Image analysis is happening in horticulture i.e. potato grading, and it should be easy enough to adapt. Some benefits of this technology might include: Early warning and surveillance of pests and weed incursions; grain size; more targeted inputs the next year; ability to use information through block chain and grain supply chain to differentiate an individual farmers grain. Drawbacks may include: Added complication of more data generated; tech issues; where is all the information stored, potentially don't want some to have access.	4.23	3.69	2.73

Albany	Root lesion Nematodes	Nematodes work has been done but more work could be done on break crop interaction with each of the different species. Growers still don't know the resistance/tolerance of all crops to different species - e.g. faba beans to P. quasitereoides. How do growers manage the issue if you have more than one species in a paddock? The fact that there are different species and they prefer different hosts needs to be better understood and extended.	3.58	3.54	3.31
Albany	Improved and standardised method for tracking chemicals on farm	Improved and standardised method for tracking batch numbers, chemical types etc more easily and efficiently such as QR codes on chemical drums that can be linked to farm recording software. Another issue is the need for chemical companies to be onboard with not using similar packaging for completely different modes of action as this has caused on-farm crop damage.	4.43	3.89	2.04
Albany	Matching yield potential in the HRZ wheat and canola are still underperforming	Growers have identified that they are still achieving poor wheat and canola yields compared to barley in the high rainfall zone. Water use efficiency of most crops is poor. Crops are under fertilised because of other risks such as frost so we need to know the ROI in frost scenarios for canola. Frost work with wheat and barley needs to be repeated in canola.	2.65	3.98	3.93
Albany	Better access to suitable oat varieties for the Albany port zone that meet market requirements	Growers wanted access to oat varieties that would meet demand using best management practice. They believe that further work needs to occur on oat breeding in WA - breeding for what the consumer wants – including looking at shorter season varieties.	2.73	3.62	3.5
Albany	There is a lack of early sowing crop varieties and agronomy to suit	Growers want early sowing varieties and suitable agronomy for those varieties. They believe there is a lack of early sowing opportunities – citing risk of frost and heat at the end of the year with current varieties. With dry sowing of canola and legumes becoming more common practice, reliance on atrazine and pre-ems is increasing, leading to increased resistance pressure for both pre-ems & post-ems (particularly clethodim). Ideally there would be a wheat phenology suited to earlier sowings but with shorter filling periods.	3.46	3.04	3.27
Albany	IWM - New technology for weed management for resistance and saving out of season rainfall; Long term results/comparison of harvest weed seed management/IWM methods and machines	Capeweed getting harder to control. How do we manage this as paraquat, and harvest weed management very poor!! Hard to control particularly in non-wetting soils or with any moisture stress. Group A resistant barley grass. Occurrence and management options in pastures. Hard to achieve late season ryegrass control in cereals to control the late winter flush	4.8	4.45	3.65
Albany	Best practice N strategies particularly around protein. Are the response curves still correct?	Nitrogen timing, type and balancing the return in difficult years, not only dry but waterlogging. More N x K work as N on its' own can be a waste. We also need to factor in N management with frost risk and terminal drought into our decision-making. There is a growing trend of low protein grain that is becoming unmarketable particularly in high yielding seasons.	4.7	4.3	3.7

Albany	Soil testing and characterisation	Rapid soil characterization and chemical analysis using new technology. Soil testing - we still do it but why. We have high P results but still get a big response. How do we know how much N, P, K and S we apply to maximize yield potential and fertiliser use efficiency while maintaining grain quality particularly protein in our newer varieties? Soil types are so variable we need to take ten samples per paddock to allow for all soil types. More confident prediction methods for gypsum responsiveness. Dispersion and ESP don't always line up nor predict profitability. Poorly structured slaking clays are not responding to gypsum.	4.8	4.2	4.2
Albany	Improved strategies and agronomy to assist with dry seeding/ early establishment of canola in non-wetting sands & some other soil types	Poor establishment of canola on non-wetting sandy soils. Germination is a struggle with furrows wetting up and good germination; other years furrows still dry and poor germination. Legume establishment on these soils is also poor. Wetter works on over 90 percent of our non-wetting gravels. How do we isolate the worst 10 percent and what do we do about it? Could EM/Gamma correlations be useful for identifying the worst areas?	3.65	4.35	3.75
Albany	Net blotch in barley seems to be increasing but in lower rainfall areas where control is not always considered economic.	Growers are increasingly concerned about fungicide resistance management. They believe there is a lack of alternate fungicide groups, and that they will break the ones they have. Barley is an increasing proportion of farm crop program. Key limitations include effective management of spot type and net type net blotch. Harder in dry starts with no summer rain	4.3	3.95	3.2
Albany	MRL's, managing our farming systems better, and overuse of chemicals	Growers need a better understanding of MRLs and the market issues associated with breaches. How can drift issues affect results? How do farmers get help with false positives with a lot of false positives being relayed back to farmers? Are tests correct? Further investment is needed to look at herbicide/fungicide label extension into nonregistered crops for old chemistry products. MRL work will be important to go along with this. Trifluralin in oats is a good example of this. Growers are concerned about overuse of chemicals and increased rates; and residues thereafter.	4.45	3.65	2.75
Albany	Snails contaminating grain, particularly canola, making delivery at harvest problematic and costly	How to meet the CBH receival standards re snails for canola - Exploring other marketing opportunities so grain won't be discounted. It is looking likely that many growers will be removing canola (a very profitable break crop) from the rotation if this issue is not solved.	1	4.4	3.75
Albany	Subsoil drainage - demonstration sites including waterlogging and saline seepage	Sub-surface drainage to improve areas of waterlogging and potential to alleviate areas of transient salinity. Sub-surface draining/tile drainage systems? Massive potential in wet areas if we could get water away while still maintaining efficiency (without contours/drains). Subsoil drainage options in the HRZ is needed, on variable soil types.	1.5	2.35	3.75