

## SW WA Drought Hub Themes and Priorities 2023-24 (updated 310823)

Agro-ecological zone	Theme	Priorities
Mid-West & Gascoyne Coastal	Best Practice Agronomy	(a) Forecasting tools and systems to protect and cool horticultural crops
		(b) Post-harvest practices that improve the shelf life of horticultural products
		(c) Improved summer or over-summering weed management practices
		(d) Improved crop varieties that better suit the region's current & future climate
		(e) Best practice water management in horticultural systems
		(f) Optimum inputs to increase crop production while building soil health and business resilience
	Carbon Footprint & Environmental priorities	(g) Education and support programs addressing carbon neutrality and future sustainability challenges
		(h) Improved waste management and recycling techniques
	Water use efficiency	(i) Improved water use efficiency using practices from other industries or countries
		(j) Practices that reduce the risk and impact of salinisation
	Crop genetics	(k) Improved vegetable and priority crop rootstock for drought and salinity tolerance
	Erosion management	(l) Best practice flood plain erosion management
	Evaporative cooling	(m) Effective misting and evaporative cooling systems in protected and outdoor crops
	Irrigation management	(n) Efficient water filtration systems in protected crops
	Professional development	(o) Upskilling for best practice water management and agronomy
		(p) Further development of business resilience skills and succession planning
		(q) Supply chain and marketing workshops
	Protected cropping	(r) Effective & resilient structures for protected cropping
		(s) Salt tolerant crop options
	Better Use of Rainfall	(a) Adaptive management planning that considers rehydration and total grazing pressure

<b>Southern Rangelands</b>		(b) Evidence-based and cost-effective techniques to improve rainfall infiltration rates
		(c) Water management practices for designing and building/maintaining road and track infrastructure and rehydration implications
	Forage Use Efficiency	(d) Infrastructure and cost-effective practices to control stock numbers to aid in the management of total grazing pressure, including controlling pest species such as kangaroos, camels and donkeys
		(e) Practices that maximise year-round ground cover
		(f) Optimal and economically viable systems for a future climate
		(g) Forage budgeting methods that utilise visual assessments and/or remote sensing satellite or drone technology data, with calibration against body condition scores across the production year
	Best Practice Livestock Management	(h) Practices and technologies (including benchmarking, genetic selection and grazing management) that optimise herd and flock productivity
		(i) Grazing management practices that address limiting nutrients to optimise stocking rate and productivity
	Professional Development	(j) Capacity building programs to build capacity in the pastoral industry
	Better Use of Groundwater	(k) Desalination options for southern pastoral lands
	Business Management	(l) Upskilling for best practice WH & S
		(m) Further development of business management skills and systems analysis
	Livestock genetics	(n) Genetics that raise reproductive rates and better meet target market specifications in the southern rangelands
	Carbon Farming	(o) Extension activities and carbon metrics development addressing carbon farming, biodiversity certification schemes, natural capital projects and implications for market development and access
	Digital Agriculture	(p) Remote technologies to better monitor and manage livestock and landscape condition to achieve increased efficiencies and improved decision making, including extension of current FDF funded work
<b>Wheatbelt</b>	Best Practice Agronomy	(a) Precision agriculture and technology for improved agronomic decision-making
		(b) Lessons learnt from other farm enterprises that demonstrate business resilience and performance in dry and variable years
		(c) Crop and pasture varieties and associated agronomic practices that optimise profitability and productivity in a variable climate
		(d) Options that improve moisture retention and germination rates
		(e) Optimise year-round water and feed supplies

	Best Practice Livestock Management	(f) Decrease ewe and lamb mortality
		(g) Incorporate a genuine farming systems approach to the management of cropping and livestock enterprises
	Business Management	(h) Improve understanding of farmers' attitudes towards managing seasonal variability and a drying climate, including identifying triggers for transformational change
		(i) Diverse farming systems that improve drought resilience and could include native species; trees; bushfoods; greenhouse gas emission accounting and carbon farming; off-farm enterprises; natural capital accounting; and biodiversity credits
	Crop and Fodder Genetics	(j) Appropriate crop or fodder options that suit a more variable climate
	Digital Agriculture	(k) Build industry digital capacity and literacy
		(l) Utilise remote sensing technology and the 'Internet of Things' (IoT) to efficiently manage seasonal variability in a drying climate
	New Technologies and Opportunities	(m) Emerging alternate land users and uses that can support sustainable farming systems
		(n) Machinery options that promote better water harvesting during dry or variable seasons
	Soil Management	(o) Soil amelioration practices that improve water use efficiency, increase water infiltration, conserve water and optimise access to subsoil water
		(p) Practices that improve soil health to help build farm resilience in drying climates
	Water Security	(q) Planning and practices that optimise farm and catchment-level access to and storage of high-quality water
<b>South-West</b>	Best Practice Agronomy	(a) Practices that optimise management during extreme heat, which may relate to tree canopy structure, evaporative cooling, netting, irrigation, nutrition, spray-on protectants, and other stress reduction products/practices
		(b) Protected cropping options to manage water, salinity and heat stress, and provision to growers of return-on-investment (ROI) information for different crop types
		(c) Best management practice for feed production that matches animal requirements while minimising emissions
		(d) Improved biodiversity plantings, revegetation, and pollination services to increase floral resources for apiarists

Best Practice Livestock Management	(e) Information about feeding strategies, including benchmarking, economic analyses and seasonal variability planning. Feeding strategies may include containment feedlots, supplementary feeding, forage conservation - hay/silage, forage shrubs and crop and/or pasture species mixes for a range of soil types
	(f) Mixed species fodder (crop or pasture) that is resilient in variable seasons and suitable for high rainfall zone
	(g) Information about drought resilient shelterbelts
	(h) Effective systems for providing shade for animals to reduce impacts of heat stress and improve animal productivity
	(i) Time of calving and lambing that matches feed supply and market demand
Business Management	(j) Environmental best practice guidelines
	(k) Good employment practices to attract and retain quality staff
Carbon Footprint	(l) Business and productivity benchmarking for environmentally sustainable practices across all industries
	(m) Education programs on best practice carbon accounting and sequestration
Irrigation management	(n) Best practice irrigation systems suitable for their environment and farming system
New Technologies	(o) Information delivered at demonstration sites (digital farm set-up) focusing on digital agriculture and data use, using 'Internet of Things' (IoT) technology (which may include weather, soil and other sensor data) to farm management decisions during variable seasons
Protected cropping	(p) Efficient systems (shade, structures) for protected cropping that provide best return on investment
Water security	(q) Improved water capture and conservation options, including management of surface irrigation water, roaded catchments and dam technology
	(r) Water testing to ensure optimal water quality and supply in a changing climate
	(s) Improved wastewater recycling or reuse options from intensive industries
	(t) Government supported infrastructure to ensure secure water supplies
	(u) Water management and forward planning to ensure water availability during periods of drought/low rainfall