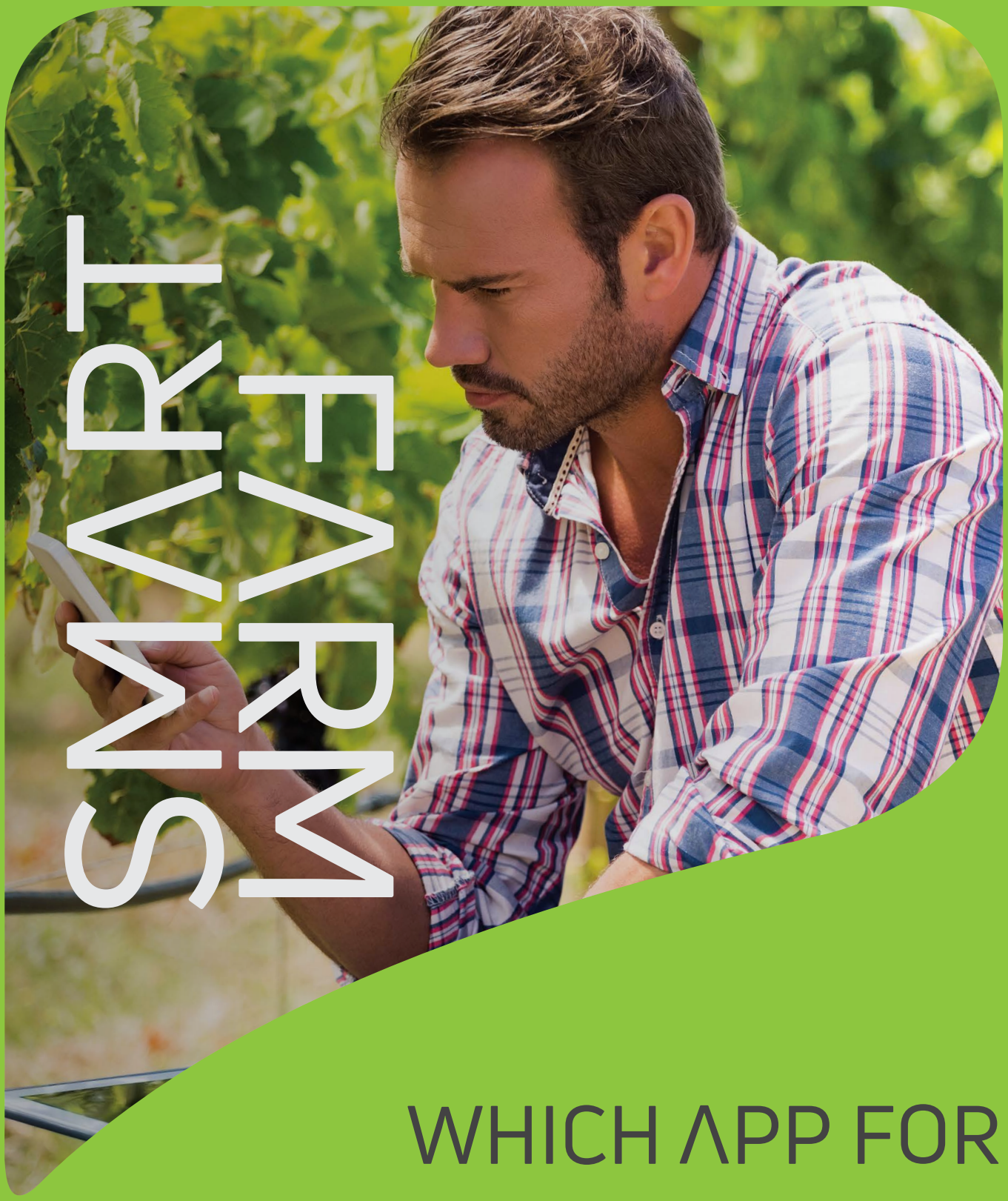

WHICH APP FOR HORTICULTURE

SunITAFE

TAFE VICTORIA

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WHICH APP FOR HORTICULTURE

Welcome to the first edition of SuniTAFE SMART Farm Which App for Horticulture digital book.

We live in a world where its common place to be connected to people, and now being connected to our farms and properties is no different. To that end, there appears to be an app(lication) for everything today, and for many horticultural operations, this is no different.

Apps for horticulture have been evolving over the past few years in line with the emergence of Agtech start-ups with a common goal to assist growers with their daily operations. Apps allow growers (and advisors) the ease of being able to make management decisions or to collect data using their smart devices (phone or tablet).

Data is then in a ready –to-export format for sharing, and record keeping is easier and more accessible. The instant availability from online sources, especially specialised apps, allow growers to make decision quickly, based on accurate and up-to-date information. Many of the best apps are available for free and others at low cost considering their benefits.

This guide showcases over 60 and is not an exhaustive list of what is available on the market.

The inclusion of the listed apps in this publication is not an endorsement, simply making you aware of what is available.

We encourage you to trial and evaluate apps. All apps can be easily downloaded from the Google Play Store or iTunes:
https://goo.gl/2wdv0A
https://goo.gl/bkNIOG

The SMART Farm team acknowledges information sources including the SMART phone apps for SMART farmers V2 publication produced by Ag Excellence Alliance and the NSW DPI Grapevine Management Guide 2016-17.

ICON OF APP	NAME AND BRIEF DESCRIPTION OF APP	AVAILABLE FROM	APP THEME
CROPS			
	Australian Almonds App With many consumers turning to their smartphones as the first point of information, the almond industry is hoping to grasp hold of the trend. Australian Almonds has launched its own app to help connect the public with the industry and the product. The app features a 360-degree virtual tour of an almond farm, including the option to use it within a three-dimensional virtual reality set up. It also app promotes the heart health benefits of almonds while giving plenty of recipes to choose from, featuring almonds.		Almonds
	Citrus Australia Citrus Quality Calculator The Australian Citrus Quality Standards aim to assist growers, packers, marketers and retailers deliver quality citrus that Australian consumers can enjoy with confidence. It aims to assist you in keeping your valuable consumers happy and coming back for more.		Citrus
	ATGA MRLs Search Provides real-time information on maximum residue limits (MRLs) and withholding periods (WHPs) for both domestic and export markets. The app provides access to real-time pre- and post-harvest chemical application data, including MRLs and WHPs based on domestic and export market, target pest or disease and/or active constituents. With an easy-to-use interface, growers can use the app anywhere and anytime due to its offline capability.		Table Grapes
	VitiCanopy VitiCanopy allows you to obtain canopy architectural parameters for grapevines using cover digital photography and automated analysis by applying gap size assessment algorithms.		Viticulture
	FitVine Fit Vine helps you assess the quality of vines before you plant them. Avoid planting sub-standard or diseased vines that will impact your bottom line with Fit Vine. Developed by the National Wine and Grape Industry Centre, Fit Vine is quick and simple to use, requires no special training or knowledge and can be used outdoors in the vineyard. A pair of secateurs (pruning clippers) is all you need. Features: •Accurately assess the quality of vines •See pictures of diseased and healthy vines •Identify common physical vine defects •Learn to dissect sample vines •Create a permanent record of your evaluation •Email the results of your evaluation •Made by a world leader in grapevine propagation •Read helpful information		Viticulture

ICON OF APP	NAME AND BRIEF DESCRIPTION OF APP	AVAILABLE FROM	APP THEME
CROPS			
	Grape varieties The appendix contains a description of grape varieties.		Viticulture
	TTU Vineyard Advisor The Vineyard Advisor provides recommendations for management of more than 360 problems afflicting grapes nationwide, from diseases, insects, mites, nematodes and wildlife, to environmental stress, physiological disorders and weeds. The Vineyard Advisor is produced by the Viticulture and Enology program at Texas Tech University and is managed by Edward Hellman, Professor of Viticulture and Enology.	 	Viticulture
	WineOz Smart Grape This app funded by Wine Australia is a National Wine and Grape Industry Centre (NWGIC) project at Charles Sturt University to analyse images of grape bunches by giving an approximation of the berry size and colour/hue. With this information, wine growers can track how the colour and the size of their grapes has progressed over time and use that information to help inform their decisions around when to harvest. In order to estimate the grape size, we recommend you use a probe circular object which can be inserted into the grape bunch while taking a picture. This allows the app to have a real world reference point to help the app estimate the size of the grapes more accurately. All you have to do is line up the probe with the centre marker while taking a photo with the app. The app can be used without using a probe as well, though the size estimation will be approximated.		Viticulture
	Vivino Vivino is the world's largest wine community and the ultimate destination for discovering and buying wines. https://www.vivino.com/app • Scan: Take a photo of any wine label or restaurant wine list or search by wine • Learn: Instantly see detailed information about the wine and all available purchasing options • Review: Community powered wine ratings, reviews, average price, food pairings and more provided on every wine • Buy: To purchase, tap the green buy button and have it shipped to your door - always buy the right wine • Rate: Add your own ratings and reviews to build your wine profile and enhance your personalized recommendations • Track: Easily keep track of wines you have tried, including personal rating, notes and date consumed • Store: Free cellar tracking to always know what wine you have on hand in your collection	 	Wines
	WineryTale Every Australian wine will have the benefit of augmented reality at their fingertips as a ground-breaking new app prepares to launch world-wide. Content for more than 2000 Australian wineries will be displayed on the Winerytale app in stunning augmented reality for FREE. Winerytale, 2019 most talked about technology, is a ground-breaking platform that enables any wine-lover with a smartphone to see the story behind the hundreds of wines across the world they're drinking. https://winerytale.com/	 	Wines

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CROPS			
	Winemaking calculators app The Australian Wine Research Institute's Winemaking Calculator is an essential application for all enologists and winemakers containing all the main calculations you will need to make red, white and fortified wine. AWRI Winemaking Calculator contains tools for: • Acid addition and removal • SO2 addition and reduction • Wine additions – DAP, Copper, Oxygen, • Wine fining - Tannin, PVPP, Isinglass, Gelatine, Carbon, Bentonite, Potassium bitartrate (KHT) • Heat and cold stabilisation • Wine fortification and sweetening • Wine label and export requirements – Methanol level, standard drinks calculator • Sensory tests – duo trio, triangle, preference tests • Conversions/mass, volume and concentration equivalents, acidity conversions	 	Wine
PESTS AND DISEASE			
	AWRI Agrochemical Search A must for Australian grape growers and winemakers exporting wine. The AWRI's agrochemical app helps you quickly identify the preferred agrochemical for use in the production of grapes for export wine, and any restrictions on their use. • Select the target and the growth stage of your vines • List active constituents based on recommended withholding period for export grapes • List chemical products available		Chemical
	Citrus ID Citrus pests and diseases may be found on a number of plant species in various plant families. The *Citrus ID Key* is primarily intended to help people working or conducting pest surveys in citrus orchards, variety collections, and home gardens, so its focus is limited exclusively to the citrus family *(Rutaceae)*. Although eight genera of Rutaceae are native to the continental United States *(Amyris, Choisya, Cneoridium, Esenbeckia, Helietta, Ptelea, Thamnosma, and Zanthoxylum)*, most of these are unlikely to be encountered in our target locations and can be keyed using regional guides. The cultivars and taxa of citrus and relatives that have been introduced and released for cultivation are the most likely to be encountered in cultivated settings, so the *Citrus ID Key* concentrates on these taxa.	 	Citrus Pest and Disease
	Citrus Disease Key Early disease detection and management are essential to ensuring continued viability of the U.S. citrus industry. Rapid communication of new diseases, significant outbreaks, and accurate information are vital. Many diseases are difficult to distinguish from one another or disease symptoms mimic disorder symptoms. Images and description of diseases are helpful in making a correct diagnosis.	 	Citrus Pest and Disease

ICON OF APP	NAME AND BRIEF DESCRIPTION OF APP	AVAILABLE FROM	APP THEME
PESTS AND DISEASE			
	Citrus Pest Key Citrus is one of the most important commercially grown agricultural products in the United States. Additionally, many citrus varieties are backyard crop plants, providing important sources of food at a local community level. As a result, citrus is one of the most economically important groups of plants. Numerous insect pests threaten the citrus industry and backyard citrus trees through feeding damage, while other pests vector diseases that are potentially lethal.		Citrus Pest and Disease
	Land Use Survey App The land use survey is an online form that uses remote sensing (satellite imagery) to capture the location of horticulture tree crops across Australia. The surveys submitted assist in the mapping of avocado, macadamia, mango and citrus orchards; olive groves and banana plantations. Such information supports improved marketing decision-making and underpins improved biosecurity and post natural disaster response and monitoring.	The Land Use Survey app is available here	Environment
	IPM Toolkit This app allows you to read news articles, view videos, download publications, and access pictures which will aid you in adapting Integrated Pest Management (IPM) practices to your agricultural operation. The built in news feeds are from the University of Wisconsin IPM specialists blogs, Twitter, and YouTube channels. However, you can customize the app to use feeds from your own region. The IPM pest picture search uses a national database of over 200,000 images from all areas of the country.		IPM
	Farmapp Pests Integrated Pest Management (IPM) software and IoT for reduced chemical dependency in disease/pest treatment and prevention. Farmapp is revolutionising food production management by helping growers embrace technology. Farmapp has developed an Integrated Pest Management (IPM) software-based service for crops. The software includes a combination of scouting and fumigation apps with sensors and brings automation (IOT) devices to the agriculture sector.		IPM
	Veg Pest ID Veg Pest ID helps farmers and agricultural professionals identify pests on Australian vegetable crops. Even tricky insects, diseases and disorders can be found with a few taps or keyword search. •Identify Pests Quickly: Identify thousands of different pests on your crops quickly and easily •Fast Searching: Fast keyword searching to find the pest you're looking for in an instant •Quality Content: Over 1,500 pests at your fingertips •High resolution images		Pest and Disease

ICON OF APP	NAME AND BRIEF DESCRIPTION OF APP	AVAILABLE FROM	APP THEME
PESTS AND DISEASE			
	PestGenie PestGenie Mobile provides access to in depth farm chemical safety information, including pesticide labels and SDS. It also maintains accurate crop protection chemical usage records and facilitates compliance with relevant legislative and industry requirements. **Features at a glance:** Product Information - real time access to the most up-to-date farm chemical product information, with an extensive proprietary database of Safety Data Sheets (SDS) and label information comprised of 7 million chemical records. Crop Protection Expert - this module helps you to locate the most suitable pesticide or animal health solution for a particular farm production situation in 3 easy steps. Spray Diary – enables comprehensive records of pesticide applications to be maintained in a form that meets all relevant legal, industry and quality control requirements. Chemical Inventory - automatically generate the necessary documentation for chemical storage and use.		Pest and Disease
	MyPestGuide Grapes MyPestGuide Grapes app provides a mobile field identification guide to allow users to quickly search for a pest or disease of grapevines according to either the damage seen, or the type of pest or disease. When combined with MyPestGuide Reporter app, they become a powerful, on the spot, mobile surveillance tool. MyPestGuide Reporter allows you to easily create a report, link up to four images and send this direct to the Department of Primary Industries and Regional Development (DPIRD) for identification confirmation.		Viticulture Pest and Disease
IRRIGATION			
NETAFIM	**Netafim Evapotranspiration App** Knowing the ET or evapotranspiration value of your field gives you the exact information about your field's water consumption and irrigation needs. If you want to know how much water your crops need, you need to know the ET or evapotranspiration value of your field. ET is a value based on the amount of water that the plant consumes by transpiration along with evaporation from the soil. Altogether it represents the fields' water consumption and your irrigation needs.	NETAFIM	Irrigation
smartirrigation apps	**Smart Irrigation Apps** Smartphone technology for managing urban and agricultural irrigation has apps for a range of crops including; citrus, strawberry, avocado, vegetable, and more. It provides an irrigation schedule based on a water balance and real-time weather and forecast data.	smartirrigation apps Download the iOS and android version for each crop type.	Irrigation
NETAFIM	**NetSpeX** Not sure which sprinkler is optimal for your application? NetSpeX by Netafim makes designing and choosing your sprinkler system simple.		Irrigation

ICON OF APP	NAME AND BRIEF DESCRIPTION OF APP	AVAILABLE FROM	APP THEME
IRRIGATION			
	HydroCalc Pro software Model and analyse performance of in-field components (like dripper lines, laterals, micro-sprinklers, mainlines, sub-mains, valves and accessories), run your own hydraulic calculations and make changes on the fly with this easy-to-use software tool. This powerful tool makes allows you to graphically demonstrate the calculations that underpin your precision irrigation systems		Irrigation
VALVES NETAFIM	**Netafim Control Valve** NetafimTM offers a friendly user tool for the correct selection, installation and maintenance of valves in the irrigation system. The tool is addressing the needs of designers, dealers and growers by enabling the user to: •Get to know our portfolio and review the products characteristics •Ensure the correct selection of valves and control loops •Troubleshoot and maintain for optimal performance •Use both simple and advanced hydraulic calculators		Irrigation
	CCW Grapevine Irrigation CCW Co-operative Limited provide an irrigation schedule calculated on a predicted forecast of evapotranspiration.		Irrigation
PRODUCTION / RECORD KEEPING			
JOHN DEERE	**JD Link** This app is designed to allow you to monitor your fleet of equipment using your iPhone. **Features:** •Ultimate Data (if applicable) •Share Ultimate Data as PDF, JPEG or CSV •Multiple machine mapping •Directions to machines - Ping machines •Fleet scorecard for alerts •View and acknowledge alerts •Engine Hours •John Deere Remote Display Access •Users can filter multiple alert categories at one time •Users have the ability to view and search by Machine PIN •Bar-code scanner for Machine search		Machinery
TRACTORPAL™	**TractorPal** TractorPal keeps inventory and maintenance records for all your personal agriculture machines and attachments, including all of your cars and trucks of all brands. This app will simplify your machine care in three ways: •Track Your Inventory •Track Service and Receive Reminders •Email Records (with in-app purchase)		Machinery
	Crop Nutrient Deficiency Image Library A comprehensive collection of crop nutrient deficiency photos. A range of nutrient deficiency examples are provided for 14 prominent crops(alfalfa, banana, barley, canola, citrus, cotton, maize, oil palm, potato, rice, sorghum, soybean, sugarcane, wheat). Text and diagrammatic descriptions are also provided.	Similar apps available for Android	Nutrition

ICON OF APP	NAME AND BRIEF DESCRIPTION OF APP	AVAILABLE FROM	APP THEME
PRODUCTION / RECORD KEEPING			
CHEMICAL SAFETY DATA SHEETS	**Chemical Safety Data Sheets** This app displays International Chemical Safety Cards [ICSC] produced by the United Nations Environment Programme (UNEP), the International Labour Office (ILO), and the World Health Organization (WHO). An ICSC is very similar to an Material Safety Data Sheet [MSDS], a standard reference document from the manufacturer for chemical information and is required, for safety purposes, to be kept in any place where workers face possible exposure to those chemicals. Use the information in this app to augment occupational health and safety when working with the applicable chemicals as an adjunct to MSDS or when MSDS are unavailable. **Features:** •Fully indexed and searchable chemical list by •Name, CAS# or RTECS# •Saved history of previously viewed chemicals •Mark and View Favourites •Filters for Oilfield, Construction, EPA, OSHA •Chemicals •Email and Airprint capability	Similar apps available for Android	OHS
ST JOHN AMBULANCE AUSTRALIA	**First Aid** St John Ambulance Australia provides First Aid training to 400,000 people in Australia each year. St John Ambulance Australia is the most trusted name in First Aid training, kits and supplies. Now you can carry over 125 years of First Aid research, experience and knowledge right in your pocket. 'First Aid' is Australia's only Android app that presents step-by-step emergency First Aid information to the user with a large clear image for each step. Saving the life of a loved one is easier than you might expect. 'First Aid' by St John Ambulance Australia is undoubtedly the easiest First Aid app on the market to use. Packed with some of the most common and critical conditions that require immediate life saving First Aid. **Topics include:** Allergic Reaction, Asthma Attack, Bites and Stings, Burns, Chest Pain, Choking, Defibrillation, Diabetic Emergency, Fractures, Recovery Positio, Removal of Helmet, Severe Bleeding, Shock. 'First Aid' by St John Ambulance Australia has been developed with the help of Intensive Care Paramedics, Nurses, Doctors and First Aid training specialists. 'First Aid' is exclusive to the Australian App Store and includes the latest Cardiopulmonary Resuscitation (CPR) guidelines, as set out by the Australian Resuscitation Council (ARC).		OHS

ICON OF APP	NAME AND BRIEF DESCRIPTION OF APP	AVAILABLE FROM	APP THEME
PRODUCTION / RECORD KEEPING			
ZERO HARM	**Zero Harm Farm** Simple, mobile and paperless health and safety management for farms. A digital farm health and safety tool with potential use by both farmers and insurers. Can be used for both incident reporting and mapping near misses •Manage risks -Make your work life easier with powerful OH&S tools. •Record incidents - Record incidents and near misses without any hassle. •Notify workers - Everyone gets notified about new risks and hazards. •Induct and sign in - Workers induct and sign in on their own phones.		OHS
PAIRTREE	**Pairtree** Pairtree is a universal dashboard for your smart farms apps, data, sensors and software. Pairtree displays all of your farm data for a more informed and reliable decision making process across your entire operation. "THINK ONE, POWERED by MANY" Pairtree centralises the key messages from your existing and future digital technology by combining those data feeds together. Connecting any network, sensor and most apps and software, Pairtree complements solution provider services with other related data sets for simple farmer friendly dashboards. Pairtree can also be used throughout the supply chain for improved insights for suppliers and customers. Specialising in the Internet of Things (IoT) (through LoRaWAN, Sigfox, 3G/4G and Satellite), software APIOs, satellite imagery and web (markets, accounting, compliance).		Platform
	Farmable 2.0 Our digital tool is a field-centric hub for all data about your horticulture farming operations. The only thing you need to get started is a smartphone. **What challenges can we help with?** •Notes, data and information about fields are spread across different devices, spreadsheets and systems •Uncertainty if all crop treatment jobs are done correctly and completed 100% •Record-keeping and documentation related to your fields takes too much time •Fields' data is not available for future automation and smart farming What does our solution, Farmable 2.0 do? •Assurance that every row has been treated •Control the completion of crop treatment jobs with real-time tracking, speed and duration monitoring (by contractors and farm own workers) •Prevent lost records and forgotten observations by collecting notes in one place •Access and export field records and documentation •Digitalize farm data for future precision farming What are the first features of Farmable 2.0? •Create a digital map of fields •Take notes of observations in the field (with images/GPS coordinates) •Create crop treatment jobs with built-in calculator •Real-time tracking of crop treatment jobs •Digital storage of field activities that can be searched and shared •Harvest tracking per field		Platform Record Keeping

ICON OF APP	NAME AND BRIEF DESCRIPTION OF APP	AVAILABLE FROM	APP THEME
PRODUCTION / RECORD KEEPING			
TieUp Farming	**TieUp Farming** Tie Up Farming is an 'End to End' software solution to manage the farm and the pack house for labour-intensive horticulture agribusinesses; we are an Australian company with offices in Melbourne and Tel-Aviv, Israel. The software is extremely flexible to suit the needs of each agribusiness. Tie Up Farming creates a baseline of data through a combination of practical modules and precision ag modules, for example: •Labour management •Spray Diary to manage the chemical and fertiliser applications •Comprehensive packing shed management solution •Full traceability using a sophisticated QR barcode system •Sensors on farm •Weather forecast and disease modelling •QA •Global Gap •Fresh Care We provide real-time data that comes from the field and packing shed. Our system has an elaborate reporting system such as payroll, costings for the farm operations, and more.		Platform Record Keeping
	Croptical in Field With an ever watchful eye on your fields, GEOSYS CROPtical™ uses amazing satellite imagery to monitor daily changes in your crop's growth, health and yield. Previously only available to large organisations, this new app allows individual users to chart their crop's progress and to benchmark against other farms. GEOSYS leads the agribusiness world in offering effective agronomic tools based on the most advanced satellite technologies.		Production
	BeeConnected BeeConnected helps to connect farmers and nearby beekeepers. Instant notifications inform farmers of registered beehives near their properties and secure messaging allows sharing of information on crop protection product activities. There are three user profiles available on BeeConnected – Farmer, Beekeeper and Contractor		Production
	AgDNA Prime AgDNA features include farm planning, record keeping, boundary mapping, worked area mapping, live equipment tracking, scouting observations, communication tools, data sharing and more. All data is synchronized with your free online AgDNA account allowing activity records and setup details to be viewed from a web browser or any other AgDNA enabled device. The app also operates offline and synchronizes all data automatically when an online connection is available.		Record Keeping

ICON OF APP	NAME AND BRIEF DESCRIPTION OF APP	AVAILABLE FROM	APP THEME
PRODUCTION / RECORD KEEPING			
	AgPro AgPro enables the effective, inter-connected wireless management of your Agribusiness, Laboratory, or Farm. AgPro enables you to track via time, date and location - activities, inputs, staff, work schedules, services delivered by contractors, pests, nutrient levels, symptoms, quality parameters, harvest quantity and quality. AgPro will pre-filter pests for your crop situation, geo-locates your monitoring sites and sends the data to your desktop and online account in real time.		Record Keeping
	Agworld Agworld is a powerful cloud based data management system for the Agriculture industry featuring farm planning, document management, data capture tools, geo-spatial mapping, an industry information library, communications tools and much more. **Benefits for Consultants:** • Record your observations and recommendations incredibly quickly using our highly innovative data entry techniques. • Keep an overview of your clients' activities, receive alerts of field activities and client progress. • Receive up to the minute supplier information which you subscribe to, live as it becomes available, wherever you are. • View your clients' maps and geospatial information, for truly powerful in-field decision making. **Benefits for Farmers:** • View your farm maps in the field. • Keep track of all your farm activities in the field. • Receive notifications of new consultant recommendations or other information, in the field. **Benefits for Contractors:** • View your clients' maps and shared recommended/planned activities while on the road. • Painlessly record application records for your clients once and once only, instantly helping them with compliance and farm record, therefore enhancing your service offering.		Record Keeping
	Connected Farm Fleet This app uses your smartphone or tablet for mapping field boundaries, locate irrigation pivots, marking flags, and entering scouting information for points, lines, and polygon areas. Scouting attributes include an extensive list of weeds, insects and diseases, and allows you to log the severity of a problem, crop conditions, and more. Photos can be captured and integrated with your scouting attributes. The Connected Farm scout app is also compatible with Trimble's GreenSeeker handheld crop sensor. Start by entering NDVI (Normalized Difference Vegetation Index) readings from the handheld so that the app can automatically calculate the rate of Nitrogen. The geo-referenced location of the NDVI point is also saved in the app.		Record Keeping

ICON OF APP	NAME AND BRIEF DESCRIPTION OF APP	AVAILABLE FROM	APP THEME
PRODUCTION / RECORD KEEPING			
	FarmLogs With FarmLogs mobile you can effortlessly see recent rain on your fields, track field operations, and get crop history for all your fields on the go.		Record Keeping
	TracMap TracMap's award-winning system combines cloud-based job tasking and reporting, with a bespoke GPS guidance and reporting device in the tractor, or harvester. The two work seamlessly to provide full visibility between the office and staff in the field, ensuring all tasks are completed accurately, while capturing rich data for reporting and decision making. With TracMap Online, you can draw maps of the areas you need maintained, mark out hazards and assign job details. You can then wirelessly send all the information to your drivers from your desktop or mobile device to ensure they are in the right place, doing the right job. Our in-cab GPS display units accurately guide your drivers to the right field, orchard or specific row, with all the information they need to do the job right, showing them where the hazards are on the way. Your field operations data collected by TracMap in-cab display GPS units is sent back to TracMap Online so you can view job completion data straight away on your desktop or mobile device.		Record Keeping
SOIL			
	SoilMapp SoilMapp is designed to make soil information more accessible to help Australian farmers, consultants, planners, natural resource managers, researchers and people interested in soil. SoilMapp has been developed by CSIRO, Australia's national research agency, to allow direct access to the Australian Soil Resource Information System (ASRIS) and APSoil, the database behind the agricultural computer model: Agricultural Production Systems sIMulator (APSIM).		Soils
	MyHARDI This app allows you to calculate your chemical savings and increased spraying capacity.		Spray

ICON OF APP	NAME AND BRIEF DESCRIPTION OF APP	AVAILABLE FROM	APP THEME
SOIL			
	Soilwater (SWApp) Soilwater App (SWApp) provides Australian farmers and advisers with a ready estimate of plant available water in the soil (PAW) during a fallow and early crop phase. Soil water (PAW) can be a critical component of a crops water supply, influencing crop yield and profit. Estimates of PAW contribute to richer decisions at planting and early in crop growth where inputs can be adjusted. SWApp estimates soil water (PAW) using a tested water balance model and inputs from: • weather data from a nearby Bureau of Meteorology (BoM) sourced from the Silo (https://www.longpaddock.qld.gov.au/silo/); plus • rainfall data from a local rain gauge (entered manually); or • rainfall data automatically uploaded from a Bluetooth enabled rain gauge (10m range); and • a soil description best suited to local conditions; and • soil and crop cover conditions for each paddock. The model in SWApp simulates infiltration, runoff, evaporation, transpiration and deep drainage to provide an estimate of soil water on a daily basis. Additionally, SWApp uses long term climate data to provide a forward looking estimate of likely outcomes for the specified soil, climate and cover conditions. Starting conditions are specified by the user and can be adjusted from sensors such as a soil push probe or soil water sensor network. The functionality of SWApp will increase us more data sources come on-line (e.g. other climate and soil water networks and new sensors).		Soils
	SnapCard SnapCard was developed by the University of Western Australia and the Department of Agriculture and Food to enable growers to predict spray coverage based on weather conditions and spray settings as well as record, measure, interpret and archive actual spray coverage providing better pest control, reduced risk of pesticide resistance development and optimisation of spray application costs. SnapCard provides growers with access to a valuable decision support tool that can be used in three important ways: • Predicting spray coverage based on current conditions; time of day, tractor speed, spray nozzles, spray volume, boom height, adjuvants, and weather conditions • Comparing actual spray coverage with water sensitive spray cards, to the predicted spray coverage • Record keeping of treatment details and performance on a secure Department of Agriculture and Food server to comply with Health (Pesticides) Regulation 77 which requires treatment details to be recorded within two business days and held for three years		Spray

ICON OF APP	NAME AND BRIEF DESCRIPTION OF APP	AVAILABLE FROM	APP THEME
SOIL			
	Spray Guide Spray Guide, is designed to assist agricultural applicators, crop advisers and growers with the proper tank mixing sequence of crop protection products. Spray Guide also captures product use rates and application information and conveniently maintains comprehensive, accurate Spray Logs for easy record keeping. Following the proper mixing sequence helps users prevent product incompatibilities and can save applicators time and money by avoiding product loss and sprayer clean-out problems. Spray Guide provides the tank mixing sequence for over 1,300 common active ingredients and their tank mix partners. The Weather Integration feature helps applicators manage spray drift risk by capturing local weather information, including wind speed and direction, prior to spraying, assisting with documentation and compliance		Spray
	SpraySelect This app allows you to quickly and easily choose the proper tip or nozzle for your application. Just enter speed, spacing and your target rate, Select your drop size category and you have a list of tips that will work for your application. The right nozzle is just a few seconds away.		Spray
	Mix Tank – Agriculture Tank Mixing Order and Spray Logs Mix Tank, from Precision Laboratories, is designed to assist agricultural applicators with the proper tank mixing sequence of crop protection products. MixTank also captures product use rates and application information with Mix Sheets and conveniently maintains accurate Spray Logs for easy record keeping. Following the proper mixing sequence helps users prevent product incompatibilities and can save applicators time and money by avoiding product loss and sprayer cleanout problems. The available Weather Integration feature within the Spray Log helps applicators manage spray drift risk by displaying weather information, including wind speed and direction, prior to spraying. Weather Integration also stores conditions at the time of application within the spray log, assisting with documentation and compliance.		Spray
	Tank Mix Calculator This app allows a farmer to use a mobile device to quickly and easily generate a tank mix. Just enter your acreage, tank size, and carrier volume, then select your chemicals from the list or add your own. Tank Mix Calculator will then provide you with the number of loads required to spray your acreage, along with full and partial load mixes of the chemicals you selected.		Spray

ICON OF APP	NAME AND BRIEF DESCRIPTION OF APP	AVAILABLE FROM	APP THEME
TOOL KIT			
	Convert Units for Free This app allows the user to convert area, angles, currency, data, density, energy, force, length, mass, mileage, power, pressure, speed, temperature, time, volume, volume flow and more... The user is able to create custom unit conversions quickly and easily. Currency conversions are updated live.		Tool Kit
	ATO Vehicle Log Book ATO Vehicle Log book is fully compliant with Australian Tax Office requirements where the logbook method is used to claim the percentage business use of a vehicle. **Features:** • Multiple vehicles • Choose icon to represent vehicle • Multiple logbook periods • Calculates and reports your % business use • Editing of existing trip records • Publishes CSV files • Record journey reasons and description, and optional time	Similar apps Available for Android	Tool Kit
	Platfarm Platfarm is designed to make it easy and cost effective for farmers to carry out work on their land with more precision – helping to maximise yields whilst optimising the use of inputs from both a commercial and environmental sustainability perspective. Precision agriculture tools using affordable, everyday smartphone devices for small to medium-sized farmers.		Tool Kit
WEATHER			
	Australian CliMate Australian CliMate is a suite of climate analysis tools for iPhone, iPad and iPod touch devices. The App allows you to interrogate climate records (over the last 60 yrs) to ask a number of questions relating to rainfall, temperature, radiation, as well as derived variables such as heat sums, soil water and soil nitrate. It is designed for decision makers who use past climate statistics, forecasts and knowledge of system status (e.g. soil water, heat sum) to better manage their business.		Weather
	Elders Weather App Elders Weather includes over 2000 locations, key international locations and the ability to add up to 10 favourite locations. **Features:** • Delta T (Traffic light style Indicators for Delta T suggesting ideal spraying conditions) • 7 day forecasts • 12 month rainfall • Past 24 hours temperature • Nino 3.4 Index • Local radar • UV ratings • 3 hourly forecasts for the next 48 hours • Sunrise/Sunset • Tides • Chance of rain • Wind (gusts) • 12 month forecast for district • National Satellite • Rain forecast maps		Weather

ICON OF APP	NAME AND BRIEF DESCRIPTION OF APP	AVAILABLE FROM	APP THEME
WEATHER			
	Weatherzone Weatherzone uses Bureau of Meteorology forecasts and our meteorologists to produce accurate forecasts for Australia and the world. **Features:** • Exclusive 3 hourly temperature, icon and rain probability forecasts graph for next 24hrs • 7 day forecasts for 2000+ Australian locations for minimum, maximum temperature, icon, rain probability/likely amount and 9am/3pm wind • 1000+ international location forecasts and observations • Exclusive Pollen forecast for Capital Cities (excluding Darwin) • Exclusive Australian synoptic map with rain areas and amounts for 7 days (drawn by Weatherzone meteorologist every 12 hours) • Exclusive national video forecast with cloud rainfall, wind streamlines, rain and forecasts across Australia • Exclusive interactive local Radar animator featuring 64km, 128km, 256km, and State radars. Layer, duration, speed and dwell settings. • Exclusive High Resolution Radar images (enable in settings) • Exclusive ability to view high resolution state satellite domains • Exclusive ability to view high resolution state/national radar domains and zoom to local radars Free Version available here		
	The Yield Free Growers App **What it is:** A simple, lightweight weather App built with growers in mind, which shows past, current and future information for some crucial growing conditions. **Why you need it:** Why spend time working out ETO manually when this free app can do it for you? When you first open The Yield's free app, you'll be presented with an easy-to-read water drop image, showing you your water balance for that day. Simple, right? If you want to dive in further, scroll down to see other weather information for that day, including wind direction and speed, air temperature, rainfall and relative humidity. Swipe left to see water balance information for the last 7 days; swipe right to see forecasted water balance, rainfall, wind speed, air temperature and relative humidity for the next 7 days.		Weather
	IrriSAT IrriSAT is a freely available online app that allows growers and consultants to use satellite and weather station data to monitor crop water use.	https://irrisat-cloud.appspot.com/	Weather Soil Water

ICON OF APP	NAME AND BRIEF DESCRIPTION OF APP	AVAILABLE FROM	APP THEME
WEATHER			
BOM	**BOM** BOM Weather is the Bureau of Meteorology's weather App, giving you the most accurate weather information at your fingertips. The BOM Weather app includes: •Current conditions •Temperature •'Feels like' temperature •Wind speed and direction •Humidity •Rainfall since 9am **Forecasts** •Your forecast weather for the week ahead including temperature, rainfall (chance and amount) and wind •Three-hourly forecast temperature, wind, and rain for the next 24 hours •UV forecast for the day ahead •Sunrise and sunset times **Warnings** •Official weather warnings listed by state or territory •Live updates **Radar** •Our popular rain radar •Pinch and zoom the radar image **Location** •Search for any location in Australia •Save your favourite locations •View your current location's weather with one touch. With the BOM Weather app you can check the weather, wherever you are from Australia's official weather source, the Bureau of Meteorology. For more information: www.bom.gov.au/app		Weather

SMART FARM

JUNE 2020 CRICOS Provider Code: 01985A RTO Code: 4693

For further information contact:

Nicole Byrnes
SMART FARM Project Lead Horticulture Innovation/Technology
T: 0437 761 917

Warren Lloyd
SMART FARM Project Lead Horticulture Liaison
T: 0429 368 966

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