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Welcome to the first new-look edition of **Vitality**, AgVita's newsletter to our valued customers. It's a challenging end to the broadacre season across most parts of Australia as the extended dry takes its toll on expected crop yields and quality. In the horticultural areas, irrigation is being more heavily relied upon than ever - water quality should be of interest to all irrigated crops as significant issues can arise from poor quality water - inside we outline the simple and rapid way to get your irrigation water tested.

Also inside, we discuss completion of our NU-test Desirable Levels review. Thanks to the design of our new Database and reporting templates, clients will automatically receive these updated guidelines in all NU-test reports. Also, a useful document has been added to our website explaining (in simple language) what is reported on our expressSoil test reports.

AgVita offer both plant sap (NU-test) and plant dry tissue analysis (Plant Response). Each test has its own sampling techniques, often different from crop to crop. To help ensure we receive the correct plant parts, two documents have been updated and are available now on our website - see inside for more information.

Some of the AgVita team have been attending a few major industry events over the cold winter months - see inside for details. On these travels, we heard from Dr Rob Norton from the IPNI who explains plant analysis in an easy to understand form - see inside for some notes from Dr Norton's excellent presentation.

And finally, don't forget our popular competition where you can win an excellent bottle of Tassie wine by identifying the location of the AgVita staff member in the photo.

Aqua-Sure
water quality testing:

AQUA SURE™

Water quality is an attribute that can vary considerably depending on the source of the water (eg surface or underground) geographic region and even the time of year. Not knowing the nutrient load of irrigation water, especially of detrimental components like sodium and chloride, can lead to significant crop damage. There may also be a positive contribution of some nutrients such as nitrate and macro's like calcium and potassium which may need to be considered in nutrient budgets depending on their concentrations in the source water. Finally, knowing the fundamental property of pH is vital for some pH sensitive crops, and pH can change through a season from a single source.

AgVita offer an inexpensive and rapid water test called Aqua-Sure that measures all agronomically significant nutrients and indicators in irrigation water. AQ16 reports clearly indicate the levels of all key nutrients in both ppm and mmol/L, as well as a useful graph showing the rate of nutrients applied in kg/ha per 100mls of irrigation water applied. Some general guidelines are also shown against results.

Results for Aqua-Sure tests are reported within 24 hours of sample receipt.

Desirable Levels Review:

AgVita has a well-earned reputation for a rapid and reliable plant sap test which we call NU-test. Part of the value growers and advisors gain from using NU-test for in-crop nutrient analysis comes from the relevance of the Desirable Levels (DL's). These DL's are the backbone of the reports clients receive, allowing accurate and relevant comparison with test results that are delivered within 24 hours of us receiving your samples.

As part of our commitment to supply the most up-to-date desirable levels, AgVita undertakes a complete review every two to three years on a rolling 4 year data set. We have now completed a review of all DL's for all crops, and have implemented all reviewed DL's where appropriate into the NU-test reports. Changes are often minor and only applied to some analytes in some crops.

These updated DL's are therefore automatically available in NU-test reports and will supersede all existing levels.

Mehlich-3 soil test - its application in the WA wheat belt:

The Mehlich-3 soil test has been the backbone of our expressSoil test suite for more than 2 decades. Its use in the horticultural areas of Australia are well established. In some broadacre regions however, the long usage history of traditional soil test methods have created a database of information that inhibits new strategies such as the application of a Mehlich-3 soil test to these areas.

There has been some research that has focused on the application of Mehlich-3 soil test methods in WA in particular, and one such paper is by Katrina Walton and David Alle titled: Mehlich No. 3 Soil Test - the Western Australia Experience presented at SuperSoil 2004: the 3rd Australian New Zealand Soils Conference, held on the 5-9 December, 2004 at the University of Sydney. The full paper can be viewed [here](#)

This paper describes the correlation of macro and micro elements by Mehlich-3 to the traditional soil analysis methods of ammonium chloride, bicarbonate-K and DTPA. This correlation is very good for soils with acidic to neutral pH.

The benefit to advisors who use AgVita's expressSoil test is the consistent, rapid turn-around time for results - 5 days or less any time throughout the year. This test method is price competitive and has genuine applications in WA (and other broadacre regions) so please contact us for further discussion.

Recent events:

Over the past few months, AgVita has attended several national conferences and meetings. These included a very chilly 2015 Cotton Field Day in Narrabri, NSW; A series of tree nut nutrition seminars through the Sunraysia and Riverina; the 17th Australian Agronomy Conference in Hobart; a Victorian Independent Consultants meeting in Horsham; and several client visits recently in Western Australia.

ExpressSoil Users Guide:

The expressSoil test routinely offered by AgVita uses some slightly different chemistry to other common soil tests in Australia. This can sometimes lead to confusion when making sense of the data in our reports.

To help less experienced users, we have now produced a simple document which explains what each section of our expressSoil reports represent, what calculations are made, how analytes are measured and so on. To view a copy of this file, please click [here](#)

Dr Rob Norton (IPNI) on plant tissue tests:

Plant analysis is a powerful tool for managing crop nutrition and is widely recognised as an accurate and necessary technique in virtually all crops. As discussed elsewhere in this newsletter, AgVita offer both types of plant analysis (NU-test and Plant Response) and we are quite often asked which is the better test for a particular situation or crop.

Dr Rob Norton of the IPNI recently presented at a SFS Results Day at Cressy in Tasmania addressing this type of question in a presentation titled: [Plant Tissue Tests: - what do they tell?](#). In his presentation, Rob discusses which test is best for common demands like crop monitoring or diagnostic work, some critical aspects of tissue testing like soil conditions and timing of sampling (especially critical for sap tests). The derivation of critical levels is explored, and the effect of plant parts sampled and conditions when sampling (to be explored further in an internal AgVita investigation next newsletter) is discussed.



This excellent presentation is available for viewing [here](#) and substantially more information is available for all on their website: [International Plant Nutrition Institute \(IPNI\)](#)

Christmas Trading hours:

AgVita is committed to the Australian agricultural industry, and realise that growers and advisors do not have the luxury of taking a few weeks off over Christmas. We therefore remain open for the Christmas-New Year period, closing only on public holidays.

In 2015/16, we are closed on the following days:

- Friday 25th December 2015
- Monday 28th December 2015
- Thursday 31st December 2015
(due to Australia Post holiday)
- Friday 1st January 2016

We are open throughout January except for the Australia Day holiday on Tuesday, 26th January 2016.



Handy guide to plant analysis crops:

AgVita offer both sap (NU-test) and dry tissue (Plant Response) plant analysis with rapid turn-around times. There are unique sampling and handling protocols to follow which can vary considerably across crop types and especially, between test types.

To ease confusion, we have abundant information available on our website. Most detail is for NU-test, as the correct plant part and sample handling are critical to obtaining the most accurate analytical results. Individual sampling guidelines are available [here](#) in the *NU-test Crop Sampling Instructions* list by crop groupings.

Our plant tissue test, Plant Response is less complicated, allowing a simple document to be produced that summarises the critical information for all crops that we hold published standards for. See link [here](#) for this file: *Plant Response Sampling Guidelines*

The crops listed on this document therefore report to clients with analytical results compared to published standards. If the crop to be tested is not on this table of crop names, then we do not have published standards for that crop - please contact us if unsure.

Name that Location (...or "where's AgVita been now?"):

AgVita staff members have clocked up the kilometres over the last few years, travelling to meet existing and new clients in every state and Territory. We bring you yet another round of the "where is AgVita?" competition !!!

We have another bottle of quality Tasmanian wine to give away to the lucky winner, and in each newsletter we'll have a new location and a new prize. Get your entries in **before December 4th** by email to info@agvita.com.au

The picture for this edition of **Vitality** newsletter shows that we do sometimes get lucky with the locations we visit... where is he???. For an extra chance of winning, identify both the staff member and the location (staff member is the guy in the green shirt...).

The winner will be the best correct identification of the location (as per instructions below). No clues this time, but any funny or embarrassing stories linked to the location (or any stories about crustaceans) may sway the judge's opinion...!

The fine print.....

Competition is open to all clients and recipients of the Vitality newsletter.

Entrants who inadvertently live in the town/vicinity of the location pictured may not be considered for the prize (unless no other correct entries are received!)

Entries close 7 days after receipt of the newsletter

Winner will be notified by email at the end of the 7 days, prize will be posted out the following day.

Winners details will appear on the AgVita website soon after.

We probably need to keep it to over-18's, but that shouldn't be a problem

If multiple correct entries are received, additional "weight" will be given to entries that describe humorous/odd/interesting/embarrassing event which took place at the location (caution, details may appear in the next newsletter!!)

The judges' decision is final, but we follow the FIFA model for regulations compliance.....

