# GRDC PODCAST TRANSCRIPT

**National Variety Trials (NVT) New Variety Podcast series - Wheat**

[00:00:05] **Intro** This is a GRDC podcast.

[00:00:12] **Sally Maguire** Hello, I'm Sally Maguire. Welcome to GRDC's National Variety Trials or NVT new variety podcast series. The NVT program aims to assist Australian grain growers in varietal decision making by providing comparative information of commercially available grain varieties, including on yield performance, on disease resistance ratings and on grain quality. In this four-part series, we are hearing from a range of breeders across seven crop types, with each one providing information on newly commercialised cultivars in the NVT program that will be available to growers for the first time in the upcoming season. Today we're talking wheat. And to kick us off, let's hear from the folk at LongReach Plant Breeders. Colin Edmondson is based in the southern region.

[00:01:02] **Colin Edmondson** I think the first one I want to introduce is Stockade. So, Stockade was a variety which we developed from a Trojan cross with a LongReach breeding line. And really the reason for it was we wanted to specifically to broaden the disease resistance which we had and in Trojan. Now the end result of the cross was the standout line for yield, it was ended up being Stockade. And the difference with Trojan was primarily that we've created a very slow spring wheat. So, for instance, it's 5 to 10 days later than something like LongReach Beaufort, which we've got widely grown throughout the HRZ region. So being a very slow spring wheat suits specifically that HRZ region and with the disease package we gained upside on Trojan with Septoria resistance of about MS, an MR for stripe rust, and an MR for leaf rust. So, a good disease packaged around a HRZ variety. I think the most important thing about Trojan is really that being an APW wheat, we really wanted that option in Stockade, so this is a wheat with the same maturity as the red feed wheats, which are widely grown in the area. And Stockade provides that upside in grain quality with the APW as well. So as first entered in NVT trials in 2021 and it's available through AGF seeds. The next variety, which I really want to introduce, LRBP Matador. So LRBP Matador was a variety which we developed from a double haploid population, which we produced really from a cross between Scepter and a LongReach breeding line. So, Matador ended up being the standout for yield in the population, it showed high and stable yield over the five years of the breeding trials. And it's important when you look at how lines were developed to really look at the range of seasons which that were developed in. So, Matador started its life in the first tough finishing years of 2018 and 2019. Tight finish pushed the grain packages, push the grain yield and it was released in the upside season of 2022. So, what it showed us was it really can deliver over a wide range of years and environments in that breeding selection period. So, it's broadly adapted, like its parents, and that's really key to its success. The other key to its success is the improved canopy, which we've got in it, and I think tillering is a big part of the yield of Matador. I mean, it's showed improved canopy with a slightly shorter canopy and really that tillering has given us its yield response. So that manageable height and upsides like, you know, under severe wind conditions in 2019, we've seen that it can hold its grain together and keep its grain in head and not lose heads with wind damage. So, Matador is AH grain quality in South Australia and Victoria. Key improvements of the MS in powdery mildew and the MS in stripe rust are really sought after by growers at the moment. It was first entered into NVT in 2022 and it's available from Pacific Seeds. So, LongReach Soaker is a new release for this year and it's really a new approach to IMI systems management in the wheat phase. And the best way to describe Soaker is really talk about where it came from. So, Soaker was developed by Grains Innovation Australia, or GIA, who combined forces with LongReach in our innovative wheat program, and that's about developing new wheat varieties for growers. So, GIA developed Soaker by taking the most widely grown variety in South Australia and Victoria as the parent material in Scepter and through strategic breeding we very subtly changed it and then selected it on the field IMI herbicide screens without doing any crossing to develop a line which is got the addition of one IMI tolerance gene. So mid maturity, boron tolerance, aluminium tolerance, grain, and wide adaption are really similar to the parent material with very little change. But it's the addition of that one IMI tolerance gene which provides something a lot more strategic for growers. So, the reason we called it Soaker was this is what growers often called the wheat crop in the year after IMI break crops. Because they sometimes need to soak up IMI soil residues in the wheat phase. So, the addition of the one IMI tolerance gene can shield the crop in the year after IMI residuals are hanging around after, for instance, break crops such as lentils, beans, and canola where IMIs were applied in the previous year. So, one of the key things about Soaker is it's able to be farmer to farmer traded to allow ease of access for growers in years where we've got high IMI carryover. Now that's exactly the scenario which we're in spring 2023 where we haven't had anywhere near the amount of rain after the application of IMIs to our break crops this year. So, the risk of IMI carry-over to next year is high. And I think with the rapid expansion of lentils, this is becoming a bigger issue for growers needing and IMI tolerant wheat which can cope with residues in the year after. So, Soaker has an APW classification in the southern zone for South Australia and Victoria. And we've got plans in place to look at the potential for an upgrade in autumn next year. It was first entered into NVT trials in 2023 and data will be available at NVT online at the end of the season. So long term data on Soaker can be found on the LongReach website and it's available through AG Schilling & Co.

[00:05:47] **Sally Maguire** Also from LongReach Plant Breeders is Adrian McNair, who is based in the northern region.

[00:05:53] **Adrian McNair** LongReach Tracer is a new midseason wheat from Pacific Seeds and LongReach Plant Breeders. Tracer was first entered to yield trials within the LongReach field program in 2018, across New South Wales and Queensland. The variety has now been entered into NVT in 2023 across the same area to continue evaluation of the variety through the NVT system. Tracer is a compact variety with similar plant height as Lancer, combined with good straw strength. This makes Tracer an ideal mid-season option in zero-till full stubble retention farming systems across New South Wales and Queensland. As of September 2023, Tracer has received an APH classification for the south-eastern zone with final classification for the northern zone expected prior to sowing in 2024. Seed will be available for planning for next season through Pacific Seed's Seed Associate Network. LongReach Major is the new mid-slow maturing wheat variety from Pacific Seeds and LongReach Plant Breeders. First entered in both early and main season and NVT trials across New South Wales and Victoria in 2022, Major showed highly competitive yields in these trials when compared to a similar maturing variety such as Trojan, Beckham and Rockstar. Major has shown strong performance in acidic and sodic soils, combined with improved Septoria resistance over current widely grown varieties with similar maturities throughout southern New South Wales and Victoria. Major is AH classification for both southern and south-eastern classification zones and final classification for the northern zone is expected in early 2024. Seed will be available via the Pacific Seed Seed Associate Network for planting in 2024.

[00:07:35] **Sally Maguire** And from the West, we're joined by LongReach Plant Breeders' Matu Peipi.

[00:07:40] **Matu Peipi** LRPB Anvil CL Plus, now this is a two gene IMI tolerant wheat variety with a classification of AH in Western Australia. Anvil has been in the GRDC NVT trialling system since 2020. This has allowed us to target and focus where Anvil best fits. Because Anvil has a maturity of a quick spring, the best fit is ag zones one, two, four and five in Western Australia. Now this means that Anvil is well suited to be grown in the northern and eastern regions of Western Australia. Having a quick spring maturity, anvil does have the ability to perform very well in either quick or short seasons. But what's the most important thing? And the most important thing was it to Western Australian farmers is yield performance with the NVT long term data, Anvil has been the highest yielding IMI tolerant wheat variety in the bracket of one to four tonnes was it throughout Western Australia. But when we look at the competitive AH benchmark varieties, anvil performs on par or better sub three tonne, so that's very exciting for us with that variety. Also, what we're looking at for Anvil is its robustness with grain packages, and that's one of the secrets which Anvil brings to the party for farmers. It has got very big grains, low screenings, and the good hectolitre weights. So, for us, receivals is a very, very important part of the Anvil equation for the farming systems. As far as disease quality goes, was it throughout Western Australia, it has got a very comparable package compared with other IMI tolerant varieties. So as far as the rust goes, it's not too bad, MS for yellow Spot and S for powdery mildew, which is sufficient enough for the guys to get away with maybe one or two sprays if it does come through. LRPB Avenger is a quick spring maturing variety suiting the northern and eastern regions throughout Western Australia. Its classification is APWN so it can be delivered where applicable to the noodle stacks as long as you meet the criteria. Avenger has been in the NVT trial since 2019. A long coleoptile helps Avenger establish itself better by getting itself out of the ground. The value of the EPR for Avenger is a $4 per tonne. Havoc has been in the NVT trialling system since 2018 and has performed really well, being that it is a mid-quick variety that suits lots of areas throughout, Western Australia from the north to the east and central as well. It has got a robust grain package that seems to deliver a good screenings, hectolitre weights, and grain weights. I've found also that Havoc has actually done well from around about Walebing through to Goodlands throughout that area there and has performed really well on the more gutless sands. The reason why that is before really well on gutless sands is that I've found that Havoc has actually got a very fast grain filling package. As soon as it goes to head, its grain fill is incredibly quick, and I believe that's the reason why it's got a very robust grain package throughout these areas. Havoc also has got a classification of AH throughout Western Australia and its disease package is okay, it is suited for Western Australia. But however, it has got an MRMS rating for powdery mildew, which is fantastic and MRMS for yellow spot, which makes it a excellent variety for Western Australia. The EPR is $4 for Havoc throughout Western Australia.

[00:11:57] **Sally Maguire** Now let's hear from David Leah at RAGT.

[00:12:00] **David Leah** Love to talk to you today about RGT Waugh. RGT Waugh is a white awned slow winter wheat. It was first tested in the NVT system in 2020 and released in 2022 for the 23 seasons. It's suited to the medium high rainfall zones of southern New South Wales through to southeast SA and Tasmania. It's able to be planted from early Feb through to early April ideally, with very good stripe rust and Septoria resistance. It has excellent top end yield, being one of the highest performing varieties in the long season NVTs consistently, particularly in the high rainfall zones. It's a new variety for our company. It's coming through as one of our first white wheats to run alongside our red winter wheats. It has an EPR of $4.40, including GST, and is termed classified as a feed grain, although we are having a look at it for its potential classifications. It's an interesting variety named after the cricketers. This is the first wheat I've been able to name, and our UK arm of the business runs with cricketers, so I was able to name it after the Waugh brothers, or one of the Waugh’s, I don't pick which one, but I'll let you think of that. And it's selected after the Waugh’s as they were always long standing at the crease. The second variety of wheat that we've got, that we've just released recently is RGT Cesario. RGT Cesario is an awnless red, slow winter wheat that is classified as a feed. Also first entered in the NVT in 2020 and released in 22 for commercial release about 22. Suited to the medium to high rainfall zones southern New South Wales through to southeast SA and Tasmania. It's also similar to Waugh - able to be planted in the early Febs through to early April, and it also has very good stripe rust and Septoria resistance. It's got an excellent top end yield and has done very well in the NVT in the long season and the early sown trials over the last couple of years. It's been brought in to replace RGT Accroc and the difference between the two is that basically Cesario is a couple of days longer in maturity, although Cesario is an awnless variety. So, it's suited to a multipurpose fit, so whether it's grain, graze, but also hay and silage market. It's come out of our North French program. It's got a $4.40, including GST, EPR as well.

[00:14:41] **Sally Maguire** Next up is Brad Koster from Australian Grain Technology, or AGT.

[00:14:46] **Brad Koster** Tomahawk CL Plus, which was RAC3261 in NVTs last year, is a new wheat variety release from Australian Grain Technologies this season and will be available to growers to plant in 2024. Tomahawk CL Plus is a Scepter type Clearfield variety with slightly improved yields over Scepter. Tomahawk CL Plus has been the highest yielding Clearfield wheat variety across WA and SA and performing competitively with leading Clearfield varieties in Victoria and southern New South Wales. Tomahawk CL Plus is tolerant to Intervix herbicide, meaning you can apply Intervix in crop at label rates and timings to control certain broadleaf and grass weeds, but also use it to mitigate the risk of residue carryover from previous herbicide applications. Tomahawk CL Plus has a very similar disease resistance profile, maturity, and physical grain quality attributes as its parent - the widely adapted and very successful variety, Scepter. Tomahawk CL Plus has a very good sprouting tolerance and has an APW quality classification. Tomahawk CL Plus is with AGT affiliates this season and will be available to growers to plant in season 2024.

[00:16:14] **Sally Maguire** And also from AGT, Douglas Lush has the final word on wheat.

[00:16:19] **Douglas Lush** Sundancer is a new bread wheat variety for the early sowing window in New South Wales and Queensland. It has an APH classification for the northern zone and classification for the southeast zone is being progressed. Sundancer has a mid-slow spring maturity suitable for late April to mid-May planting in most regions of New South Wales and Queensland. Sundancer has been tested widely across New South Wales and Queensland and shown great adaptation in the 2022 early season NVT. Sundancer was included in all sites in New South Wales and southern Queensland, as well as the disease testing program. In regional yield assessment, Sundancer was well above the trial mean. From 107% of the region mean in the southwest New South Wales region to a high of 116% in the region mean for northeast New South Wales. Across the combined region of southern Queensland and New South Wales, Sundancer was 109% of the region mean. NVT provisional disease ratings emphasised Sundancer's suitability for New South Wales and Queensland. It is rated as moderately resistant to stripe rust and stem rust and is rated as resistant to moderately resistant for leaf rest. It also has a moderately susceptible rating to yellow leaf spot. Sundancer has a medium plant height, good straw strength and a longer coleoptile than Sunflex. Leverage is a new bread weight variety for the early sowing window in New South Wales and Queensland. It has an APH classification for the northern and the southeast zones. Leverage has a mid-slow spring maturity, suitable for late April to mid-May planting in most regions of New South Wales and Queensland, similar to Coolah and Coota. Leverage has been tested widely across New South Wales and Queensland and showed great adaptation in the 2022 early season NVT. Leverage was included in all sites in New South Wales and Queensland, as well as the disease testing program. In regional yield assessment, Leverage was well above the trial mean yield, from 105% of the region mean in the southwest New South Wales region to a high of 114% of the region mean in northeast New South Wales. Across the combined region of Queensland and New South Wales. Leverage was 109% of the region mean. NVT provisional disease ratings emphasise Leverage's suitability for New South Wales and Queensland. It is rated as moderately resistant to stem and leaf rust and moderately resistant to moderately susceptible to stripe rest, as well as yellow leaf spot. Leverage has a shorter plant type than Coolah, but similar straw strength, so it is well suited to our northern region.

[00:19:16] **Sally Maguire** Today, we've heard from plant breeders from across the country all talking about their wheat varieties. And just a reminder that the National Variety Trials or NVT program is completely independent, funded and managed by GRDC to provide growers with reliable information to assist in variety choice. As well as individual plant breeder websites, all the information about the varieties featured in this podcast can be found at nvt.grdc.com.au. I'm Sally Maguire. This has been a GRDC podcast. Thanks for listening.