# GRDC VIDEO or PODCAST TRANSCRIPT

**Legume Leaders – Jason Batten: Growing vetch on high pH soils**

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

[00:00:12] **Shannon Beattie** At Yuna in Western Australia's northern growing region, Jason Batten is known to try new things and has a give it a go sort of attitude. That was how he started growing vetch about three years ago, and so far he's been impressed with how well the crop grows in his corner of the world. Jason is a member of the Yuna Farm Improvement Group and is a part of the cohort of Legume Leaders that has been established by the Grower Group Alliance with Investment from GRDC. These leaders are sharing their insights on the various legume crops over a seven-part series throughout 2024. Hello there, I'm Shannon Beattie and in this episode, Jason tells us about how experimenting with serradella led him to growing vetch and how it stacks up in terms of productivity and profitability.

[00:00:56] **Jason Batten** So name, Jason Batten. Farm northeast of you so about 100 k's northeast of Geraldton. I farm with my wife, Nicole and also brother, Kim, sister-in-law, Jasmine, and also my nephew, Denver. We grow predominantly wheat, legumes, mainly lupins with a bit of vetch that we've been trialling, and a few other different, we've tried some serradellas and what have you and also grow canola as well. We used to grow a little bit of barley, but we've dropped that out of the rotation, and we grow a little bit of hay as well just because we have a sheep operation as well.

[00:01:31] **Shannon Beattie** Let's talk about the legumes side of things. You grow a fair few lupins, so let's maybe focus on that to start off with. How long have you been growing lupins for on the farm?

[00:01:41] **Jason Batten** Well, I've been growing lupins my whole farming career, which is near on 30 years now, so showing my age. But lupins have come a long way in terms of weed control. Also, the varieties we grow now are a bit more robust than when I first started farming. So, yields have improved, which has meant that we probably take a bit more nitrogen away from the paddock these days from some of the older varieties, which is something we just need to be aware of in that following year with wheat. And then we tried some different legumes along the way as well, but we've always stuck by lupins, they've been very good in the rotation.

[00:02:19] **Shannon Beattie** And one of those legumes that you've been trying is vetch. How long have you been giving that a go for and why did you stop growing vetch on the farm in the first place?

[00:02:30] **Jason Batten** We've been growing it for about three years now. Nick Eyres, one of the local agronomists here, put us on to it and it was through some trials that we'd done. So, we were trying lots of different legumes, different serradellas, also some different clovers and medics, that sort of thing. And the vetch really stood out in terms of just the way it got out of the ground. It's got a really good seed size, so you able to plant it a bit deeper, which is probably some of the problem with some of the serradellas and also the medics and that that we grow, especially in our environment, which can be a dry start to the season. And also, I can be dry through the growing season as well. So, establishing them is a really difficult thing. Because the seed size, so you have to sed traditionally like your medics and serradellas, that small seed, you have to seed them really shallow to get a good germination. So, the vetch really stood out there, it seemed to germinate well all the time, it had really good early vigour as well. There was a couple of really good seasons too, when we did start trialling it, so it did really well. It actually yielded really well to, in one of the years where we were able to harvest it. So, up this way, certainly in the northern ag region, it's pretty hard to come across a legume that can survive the dry times that we have during the growing seasons.

[00:03:47] **Shannon Beattie** Let's talk about those dry times. Just want to touch on that for a second. Last year, 2023 was a pretty dry year across most of the northern grain growing region in WA and this year is looking much the same. How did your vetch, and your lupins, but mainly your vetch, how did they hold up in a dry year? And does your plan change at all with those leading into this season when we haven't had a lot of rain?

[00:04:13] **Jason Batten** Where we farm, we always rely on summer rain, so that gives us the confidence to plant really. So, if we haven't had a lot of summer rain or like there's no moisture in the ground, we will tend to be really hesitant in planting lupins and canola dry. I'll probably plant canola dry, but lupins I'm real hesitant on just for the fact that if they get a little bit of rain on them and not enough rain to germinate, they tend to swell and lose a lot of vigour, which means you pretty much lost that seed. And the thing about vetch was that like last year being a dry season, we have had a bit of summer rain last year, so we were reasonably confident going into the season. So, we seeded probably about 150 hectares of vetch last year that we're able to seed into moisture, like chase the moisture. So, we were able to seed that down to like 50mm. So, to put it into moisture and it actually germinated really well. But then we had it really dry. I guess late May, dry into June and July. Well, the whole season was pretty dry, actually. The vetch actually did really well. I was really surprised at how well it grew. We were strapped for feed though, so we ended up grazing it and then there wasn't enough follow up rain really for that vetch to come back. So, we ended up just spraying that vetch out. It would have been probably early to mid-August that we had to spray that out. So, we weren't able to fully utilise the vetch last year. And as it turned out, last year, just given the dryness of the start, we didn't actually sow any lupins, which was a bit disappointing. But that's one thing that we've learned over the years with legumes, in particular, is to make sure conditions are right before you plant them.

[00:05:57] **Shannon Beattie** And when you say conditions are right, what are the conditions that you're relying on to make sure that you get a good legume crop for the year?

[00:06:06] **Jason Batten** You either have to be really confident in the forecast with your dry sowing to make that decision, because there's a lot of inputs that go into a crop like lupins in terms of the pre-emergent that has to go on. And then with that pre-emergent that has to go on these days to sort of control your ryegrass and radish, you're really locked into that lupins being the crop. Then you can't really switch over to a wheat or something after that. Like maybe you can like with Roundup Ready Canola if you don't put all that pre-em out. So, you're really locked into that. If you're really confident in the forecast, we might plant some lupins dry if we're confident that's going to come through. Otherwise, we'll wait till it's rained and there's enough moisture in the soil that we're fully confident that lupins going to germinate. Once germinated, they do okay, they'll hang in there. To grow a really good crop of lupins, they tend to like it being wetter at the start of the season, getting established. Once they swell and don't germinate, they will lose a lot of vigour, and we find that they never really recover.

[00:07:07] **Shannon Beattie** You've done a bit of trial and error here over the years, Jason, learning the best way to grow these different crops. When it comes to the vetch, what were some of the key challenges that you really found in those early days of figuring out the best way to get it grow on the farm and how have you overcome them?

[00:07:24] **Jason Batten** Yeah, I guess vetch probably doesn't have the same pre-emergent package as what a lupin does. You can't put the same amount of Metribuzin and that, so you know your radish control is probably not as good. There are a few other options which I really haven't trialled it enough in terms of, you know, we've done a few little trials with some different herbicides and that sort of thing but haven't done it extensively on a broad scale to know how that would go. And the other side is to, where I planted the vetch these days the radish has been pretty good, so that hasn't been too much of a challenge. It's also a really vigorous growing plant, so it tends to overtake a lot of the radish and sort of smother that out as well. And I guess one of the big challenges with vetch that we've found is how you seed through it in the next year, especially if you've got no grazing options, like if you don't run stock, you're going to really struggle to get through it unless you've got a disc machine. So that is one of the big key issues that we've found with vetch is how do we seed it the following year? So, because we've harvested it a few times, we've taken a lot of that biomass away, which it's made it easier to seed through. But if you were just using it like a brown manure, which we've done a little bit with it, very hard to seed through with the tyne machine, you would really need a disc seeder to do it effectively. That is its biggest challenge. But besides that, large seed size means you can bang it in a bit deeper. It's also, it's a medium sort of seed size, so it seems to germinate quite well. So, in terms of all that packages in being able to seed it, no challenges whatsoever.

[00:09:00] **Shannon Beattie** And how about come the end of the season? We can't deny in farming that money is a big thing when it comes to making decisions on the farm, the financial side of things. Where does vetch sit for you in terms of profit? Is it a profitable crop? Are you using it for other things and not really worried about the money side of it so much? Where does it fit in that sense?

[00:09:21] **Jason Batten** I guess we were fortunate enough in 2022, we grew 70 hectares alongside a trial and that actually yielded really well. So, that actually yielded average two tonne per hectare, which we're very surprised about. So we're able to harvest that. We use crop lifters that year as well. So that made a big difference in being able to harvest it. And it was actually a really profitable crop, but mainly because we had people within the area chasing the seed because it was a newer crop in the northern ag region and a lot of people have tried it before and we're interesting trialling it. So we sold a bit of the seed which covered a few costs for us. We're also then able to keep a lot of that seed for ourselves, which we ended up with sort of 140 tonnes. So, at a sowing rate of 30 to 40 kilos that lasts a long time. It stores really well like lupins as well. So, I guess I'm taking that profitability for us is spread out over probably about a three-year term in terms of we're not having to purchase seed, so we're able to keep that. Which is, I have to say, has been a real problem with some of the legumes that we've tried in the past is you plant that seed, you hope that you grow a good enough crop to be able to harvest it, but there's not a lot of legumes that are ariel seeded, like what vetch is. So, it's really hard to harvest. And then you can't, I guess, keep that seed which then you locked into like buying that seed it again. So, I guess in profitability, I'm more so looking at it on the fact that we can retain our own seed and then plant it in say, two or three seasons to come. This year, I'll get by with what seed I've got, but I'm possibly looking at having to plant some to harvest myself just to replenish my seed stocks.

[00:11:03] **Shannon Beattie** What tips would you give other growers who haven't grown vetch before and are thinking of bringing it into their rotation? What would you tell them in terms of whether or not it's a good fit for them and how to make sure that they're successful from the outset?

[00:11:20] **Jason Batten** Yeah so choose your soil type wisely. So, vetch does, like a lot of legumes, likes a higher pH. And we're not talking of really high pH here, we're just talking, you know, keeping it off some of your more acidic, higher aluminium, sort of soil types, like your gravels. Unless you've done a bit of spading or amelioration or something like that to get your pH good through your whole soil profile. It really likes the heavier sort of soil types, which was a fit for us. So, it likes the heavier soil types that lupins don't generally grow fantastic on. So, lupins generally like a sandier loam or a yellow sandplain up this way. So that's a main tip. Look at what herbicide options you have. So, if you're putting it into a dirty paddock, you're probably not going to get the same weed control of what you get with something like lupins. So, try and make sure it's a cleaner sort of paddock. And then I guess how you going to manage the bulk given a good season? So, if you've got livestock, you'll be wanting to graze that as soon as you get some bulk to the crop. It can handle enormous stocking rates, like with that 700 hectares that we planted on a good year. We didn't don't have enough stock to like to keep that vetch under control. It just grows really well come spring and responds really well to grazing. You could graze it right down if you want, and let it come back. In our experience, and I haven't had a huge amount of experience, but it just seems to be one of those plants. Once established, it can handle a lot of stocking pressure. So really good in that stocking phase. If you were planning it for a green or brown manure crop, green manure probably works well because you would be able to plough a lot of that bulk in which would make it easier to sow into in the following year. But as a brown manure, in our experience with a bulky brown manure, still hard to get to, if you've got nothing to graze that bulk down. And you don't want to be doing anything like burning it or whatever else because it defeats the purpose of growing that legume.

[00:13:21] **Shannon Beattie** Is vetch something, Jason, that growers will be able to start growing in the instance and get the benefits from straightaway? Or does it take a bit of time and a couple of seasons to grow it and really start to see the usefulness of it on the farm.

[00:13:36] **Jason Batten** In the trials we've done, yep, you'll get that nitrogen fixation like straight away. Also brings a bit of potassium up as well, being a deep-rooted legume. So brings a bit of that potassium up to the surface and we saw those benefits after year one with the trials that we've done. So, it's probably a little bit better than lupins with the nitrogen fixation in the trial, but there wasn't really a lot in it in that season. So that's all I can really go on with that trial. Traditionally we do a bit of fallow here. So, we had fallow against vetch and also then against lupins. And we brown manured the vetch and the lupins, and then we also harvested the vetch in the open. So obviously the best nitrogen fixation was in the brown manure and the fallow actually stacked up pretty well against that as well. So yeah, definitely see those benefits in the following season.

[00:14:31] **Shannon Beattie** To finish up, Jason, I want to ask about the Legume Leaders project in general. What do you see the benefits of this sort of program where growers who grow legumes speak directly to other growers who maybe want to grow legumes? What's the benefit of that?

[00:14:48] **Jason Batten** Well, peer-to-peer learning is always a great way of getting the message across. I have to say now that I'm actually no expert in this field, it's just that I have trialled a few legumes over the years. So, which I guess does give me a bit of knowledge. But I think the other thing is too, like it's good to learn from people who have maybe given a few things that go. We're lucky enough, we like trialling new varieties, new crops that we see might have a fit. We're not scared to trial that, whether it makes money or loses money, well, that's one of the risks you take. But I think it's a great program. We sort of didn't know what we were getting ourselves into at the start of this. But new things like this is my first podcast, so I hope we just get the message out there to keep trying legumes. Give it a go. It doesn't need to be a huge area that you trial. It might take you into a different cropping system or something that might fit in differently into the rotations, might make you think differently about what you're going to plant into, you know, those different soil types. And that's probably one of the biggest things with vetch, is the fact that we were looking for something on the heaviest soil types where we weren't traditionally growing great lupin crops really. And we've always been looking for a different legume, like we've trialled lots of different legumes and vetch has been a standout really for us.

[00:16:06] **Shannon Beattie** Jason, thanks so much for joining me on the podcast. I really appreciate your time.

[00:16:10] **Jason Batten** Thanks, Shannon. Pleasure.

[00:16:19] **Shannon Beattie** That was Yuna grower Jason Batten, who is a member of the Yuna Farm Improvement Group, talking about vetch as part of the seven-part Legume Leader series. This series is an extension of a GRDC investment titled Closing the Economic Yield Gap of Grain Legumes in WA. Bios on the Legume Leaders and their contact details can be found on the GGA website. More information on this topic can also be found in the description box of this podcast or online at grdc.com.au. I'm Shannon Beattie and this has been a GRDC podcast. Thanks for listening.