




Bundaberg Field Trial Bus Tour, 16 March 2020

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PCA BREEDING OBJECTIVES

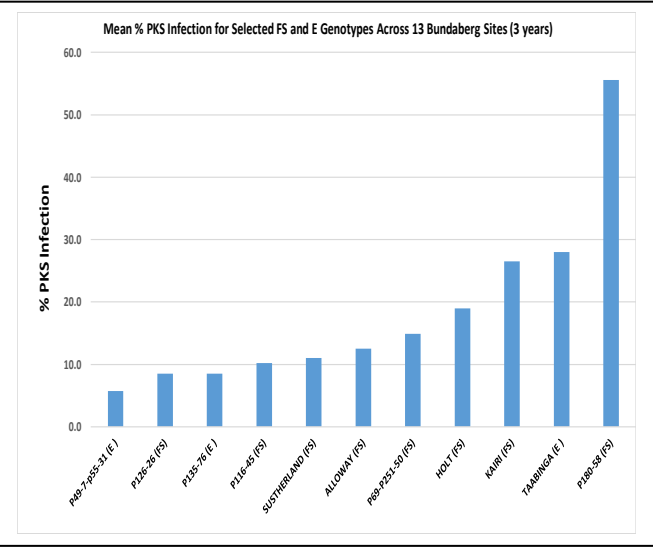
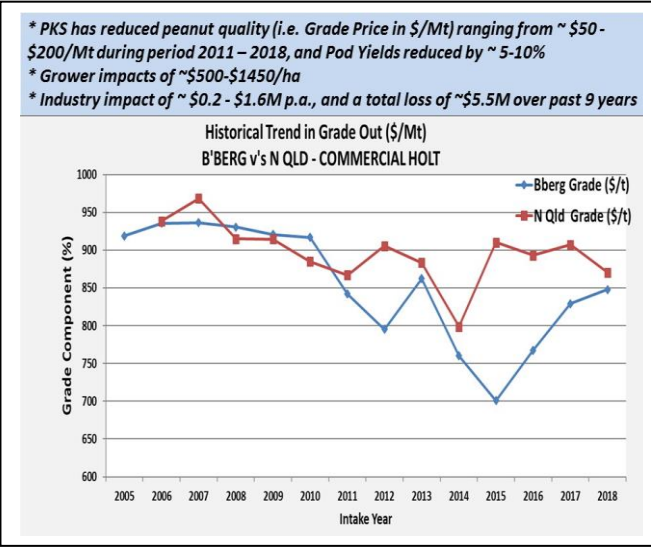


Australian Peanut Breeding Program Objectives (2007 – 2020)

High Kernel Yield	Reduce Cost of FS Production	Sustainability	Processing Efficiency	Market Acceptance
Exceeding current check varieties	Foliar disease resistance (late leaf spot, leaf rust, net blotch) Soil borne disease resistance (CBR, Neocosmospora, Fusarium)	Dryland and Irrigated environments Maturity Full Season - 150+ days Early - ~ 130 days 	Low Shelling (aim <20%) High Blanchability (aim >90%) 	oHi Oleic Chemistry o Acceptable flavour o Runner and Virginia type kernel with emphasis on larger Runner/Virginia grade in E and FS types. o High Antioxidant content for niche market opportunity

PEANUT KERNEL SHRIVEL

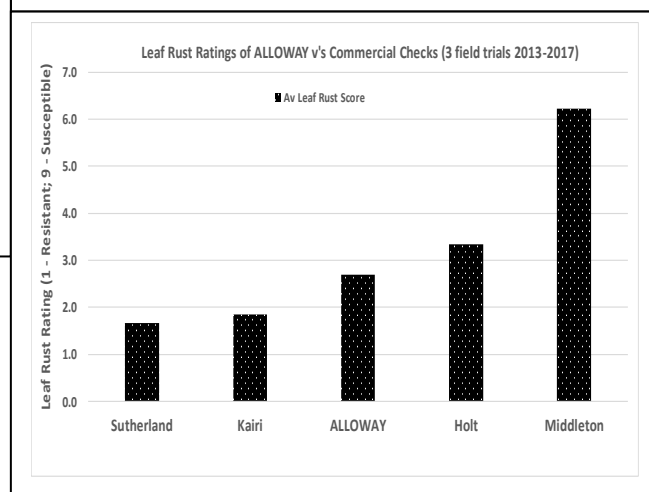
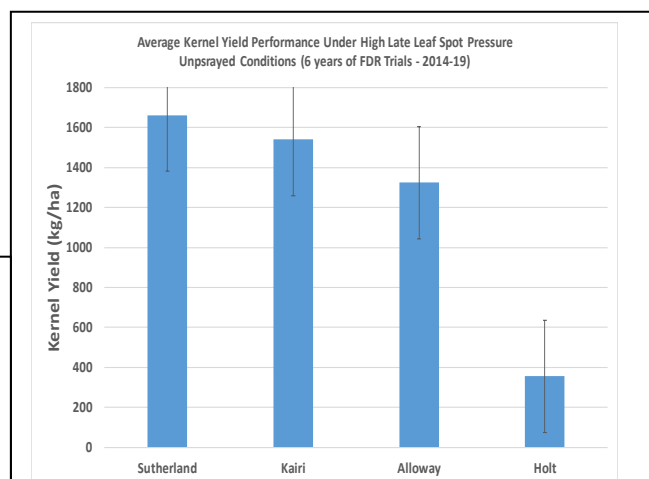
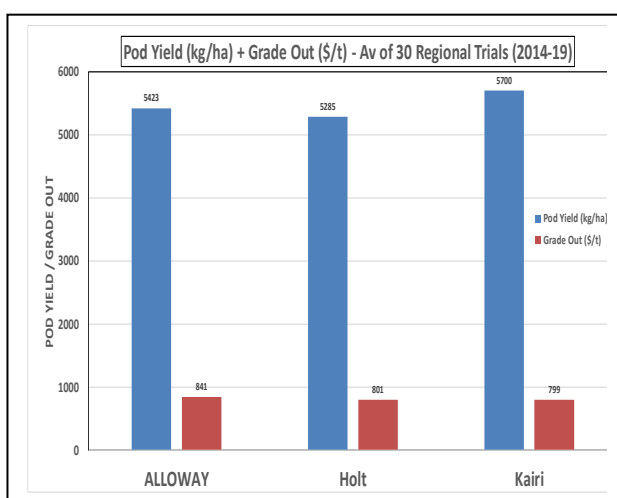
Caused by insect vectored *Phytoplasma* + genetic tolerance available



NEW POTENTIAL VARIETY RELEASES

ALLOWAY (D304-17-p148-12) (Full Season Maturity)

- Alloway is a double cross back to HOLT
- D304 pod/kernel yields and gross returns are ~5% better than Holt
- Foliar disease tolerance is significantly better than HOLT, although it is susceptible to leaf rust.
- D304 has very good tolerance to Peanut Kernel Shivel (PKS) and has performed well in Bundaberg over a number of years
- Due for commercial release in 2020/21



P69-p251-20 (Full Season Maturity)

- Consistent performer in regional variety trials with regards to yield and gross returns (up to 10% higher than Holt)
- Good foliar disease tolerance, especially to late leaf spot
- Good CBR tolerance
- Commencing Pre-level 1 seed production

P135-76 (Early Maturity)

- A 3 way cross between Redvale, Sutherland and Southern Runner with significantly improved yield, grade out and foliar disease tolerance
- Up to 7.5% yield improvement on current early maturity check variety Taabinga
- Very good tolerance to late leaf spot and leaf rust
- P135-76 has very good tolerance to PKS and has performed well in Bundaberg relative to Taabinga check
- Commencing Pre-level 1 seed production