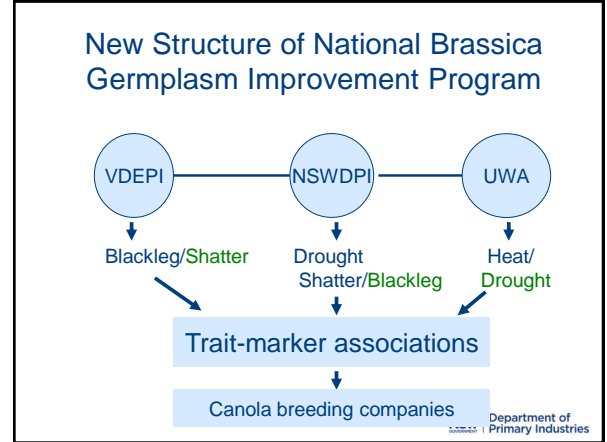


NSW Department of Primary Industries

National Brassica Germplasm Improvement Program –Past and future directions (DAN108/DAN117, 2013-14)

Harsh Raman

GRDC Harsh Raman – WAGGA – 19th Feb 2014 THE UNIVERSITY OF QUEENSLAND AUSTRALIA



Project Outcomes –DAN117

Population	Phenotyping	Marker System	Status
Skipton/Ag-Spectrum	SSI Field (2010)	SSR, DA/T, SNP array	Theor Appl Genet 2012 Plant Biotech J (under review)
Maxol/Westar	SSI	SSR, DA/T, GBS	Crop & Pasture Research 2013
Columbus/Westar	SSI, Field	SSR, DA/T	In preparation
BLN2762/Surpass400	SSI, Field	GBS	FLOS ONE
Ag-Castle/Westar-10	SSI		In preparation
DHC2261/RR005	Field (2010) ACS (2012)	60K SNP	In preparation
DHC2211/RP012'S	Field (2012)	60K SNP	In preparation
08-6702P	Field (2012)	60K SNP	Analysis in progress
RP004/Ag-Outback	SSI APR	60K SNP	In preparation
Skipton'2/Ag-Spectrum -BC,DH	Tub test (2013)	GBS (~7500 markers)	
11-5107	SSI Field (2013)-Wagga Field (2013)-Paceeed	GBS (~17000 markers)	In progress
Tapidor/Ningyou7	-	SSR, AFLP, genic, DA/T	NSW Department of Primary Industries

- ### Project Outcomes – DAN 108
- Several hundred lines were screened for resistance to blackleg disease under field conditions at Wagga
 - Lines with field resistance to blackleg disease were identified and some of them were passed to Australian canola breeding programs
 - Some lines were also screened with single spore isolates
 - Potential new genes were identified
 - Plan to develop mapping populations
 - Understand genetics underlying resistance
 - Map loci associated with resistance to *L. maculans*
- NSW Department of Primary Industries

- ### Beyond Feb 2014
- Map seedling and adult plant resistance genes in the canola and its ancestral species
 - Brassica rapa*
 - Brassica oleracea*
 - VDEPI (major node for blackleg research) will phenotype all germplasm and make data available to marker program to identify molecular markers to NSW DPI
 - NSW DPI will act as a supporting agency for phenotyping blackleg resistance under NBGIP/GRDC funded research.
- NSW Department of Primary Industries