Quality Rice. Quality Life.

Seeds and Yields: Through the Decades

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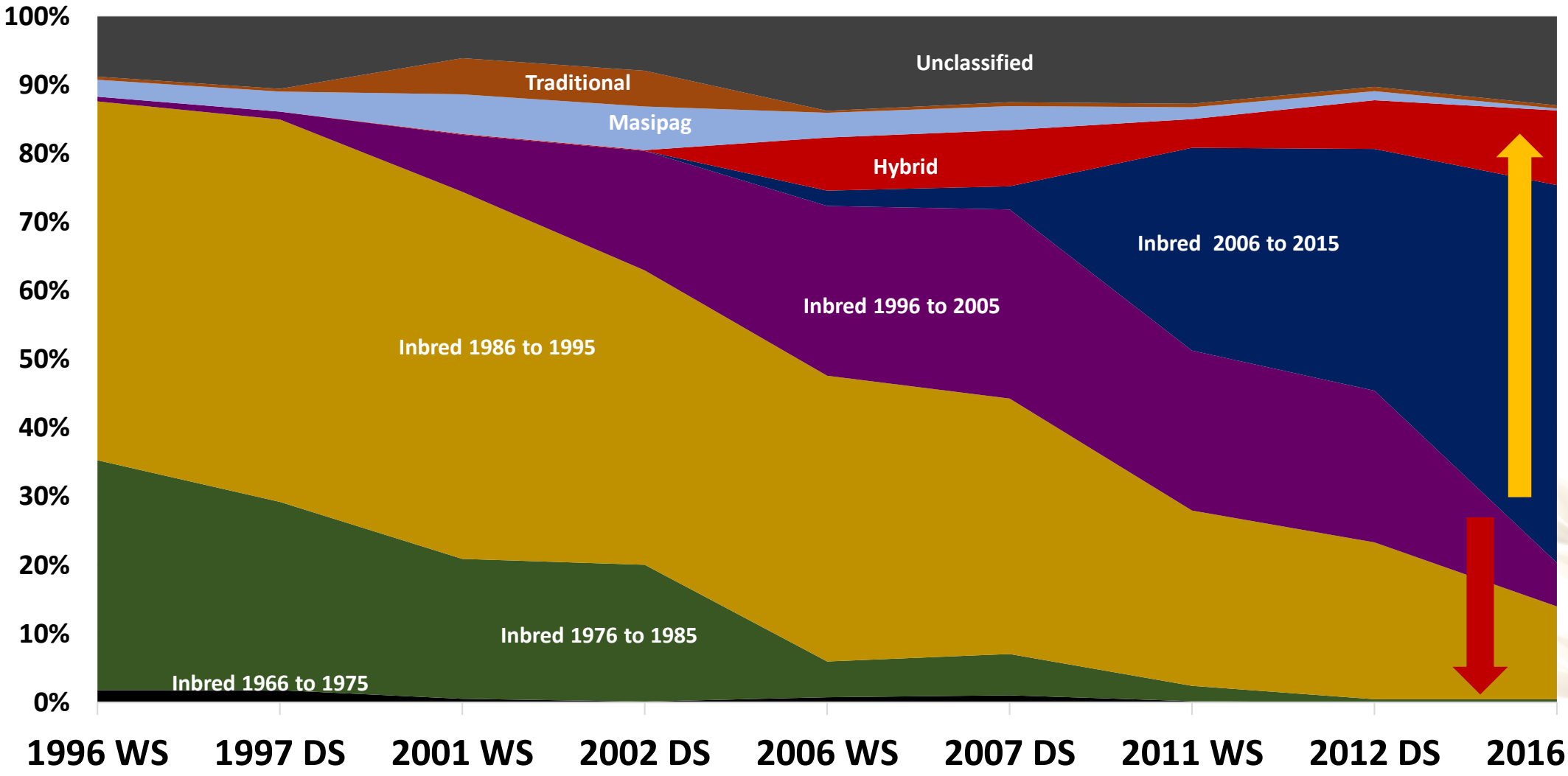
PhilRice

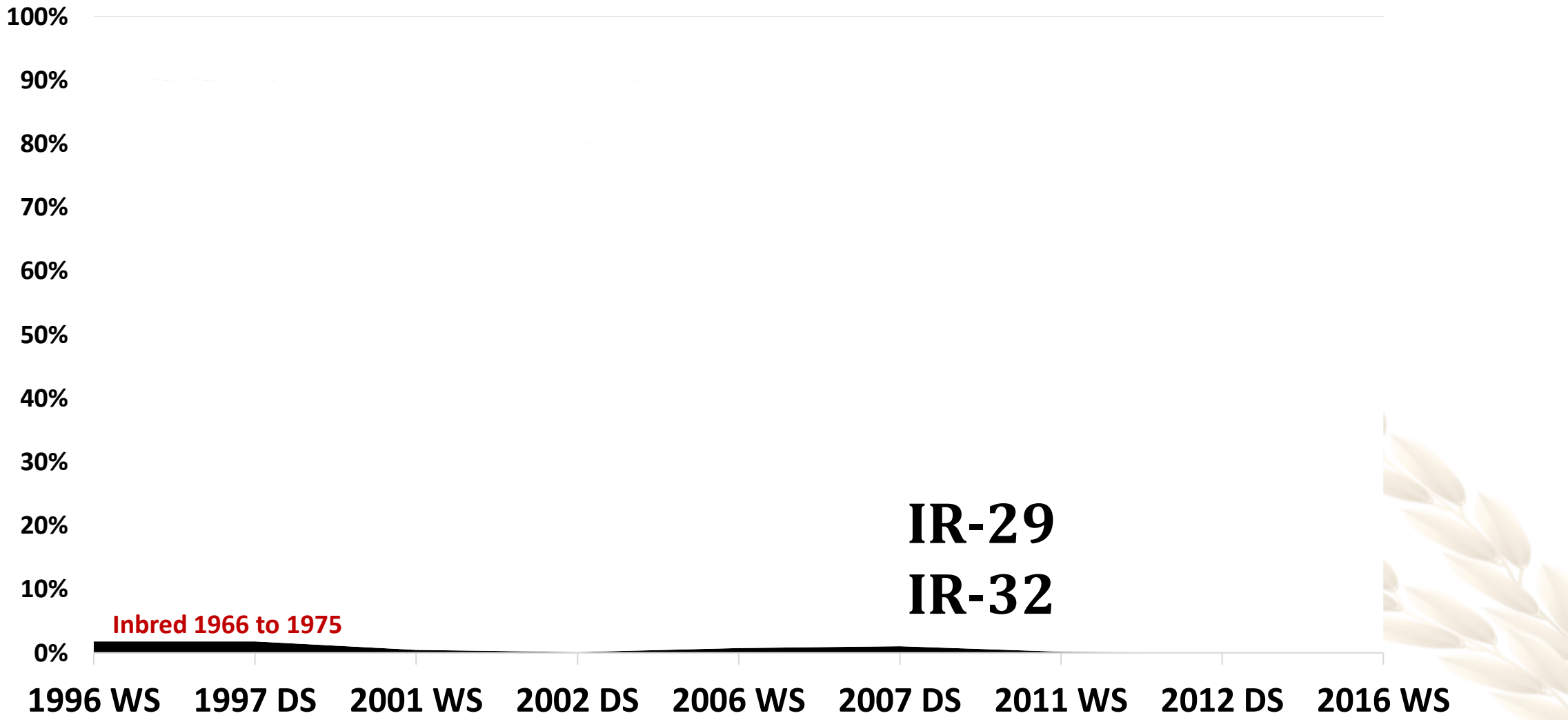
Outline

- Trends in Variety Group Share
- Enduring Varieties Over the Years
- Top Varieties Planted (2016 WS)
- Characteristics of Top Varieties Planted
- Adoption of High Quality Seeds
- Yield by Seed Class-Used
- Conclusions and Recommendations

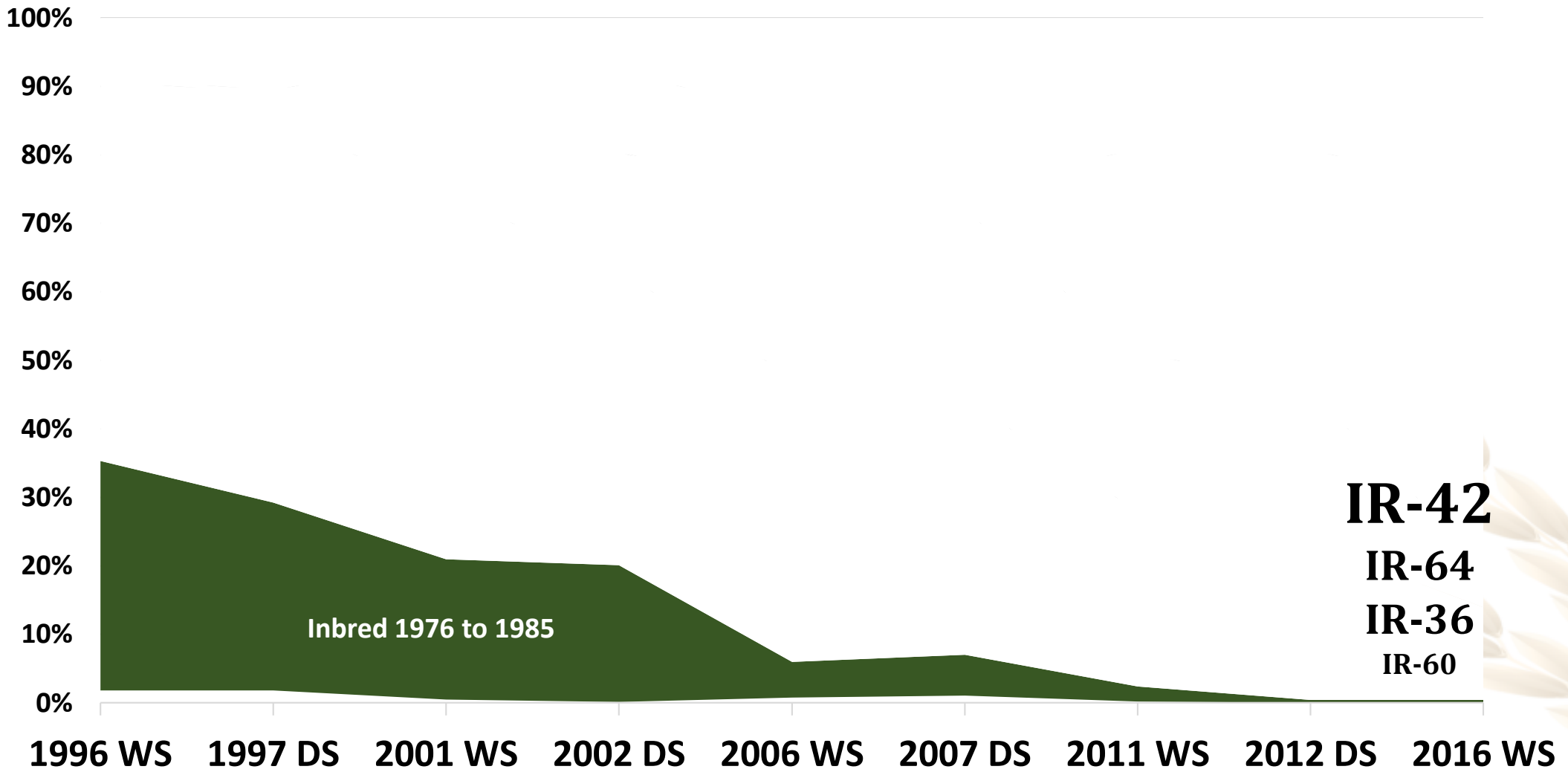
Trends in Variety Group Share



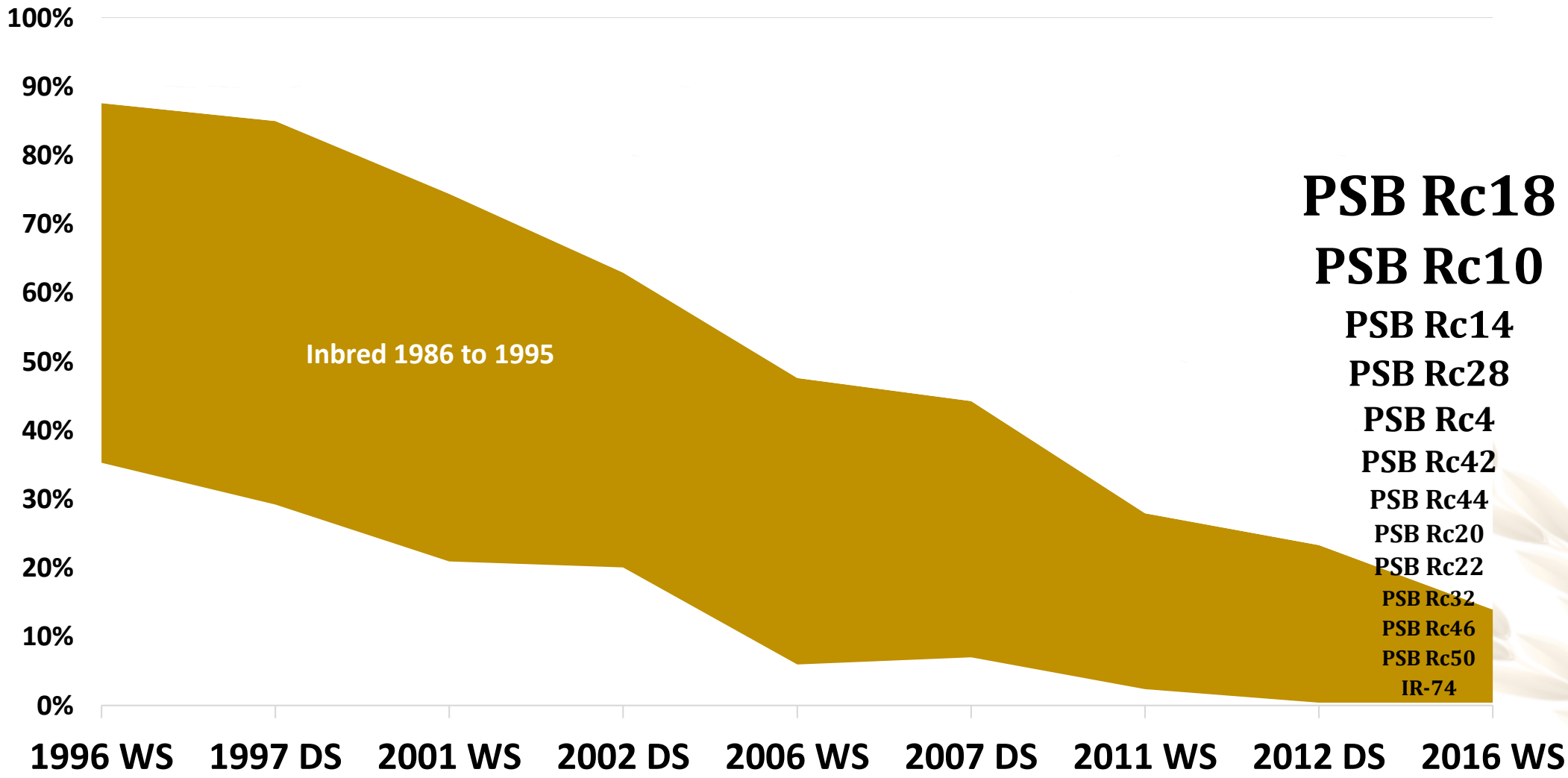
Trends in Variety Group Share



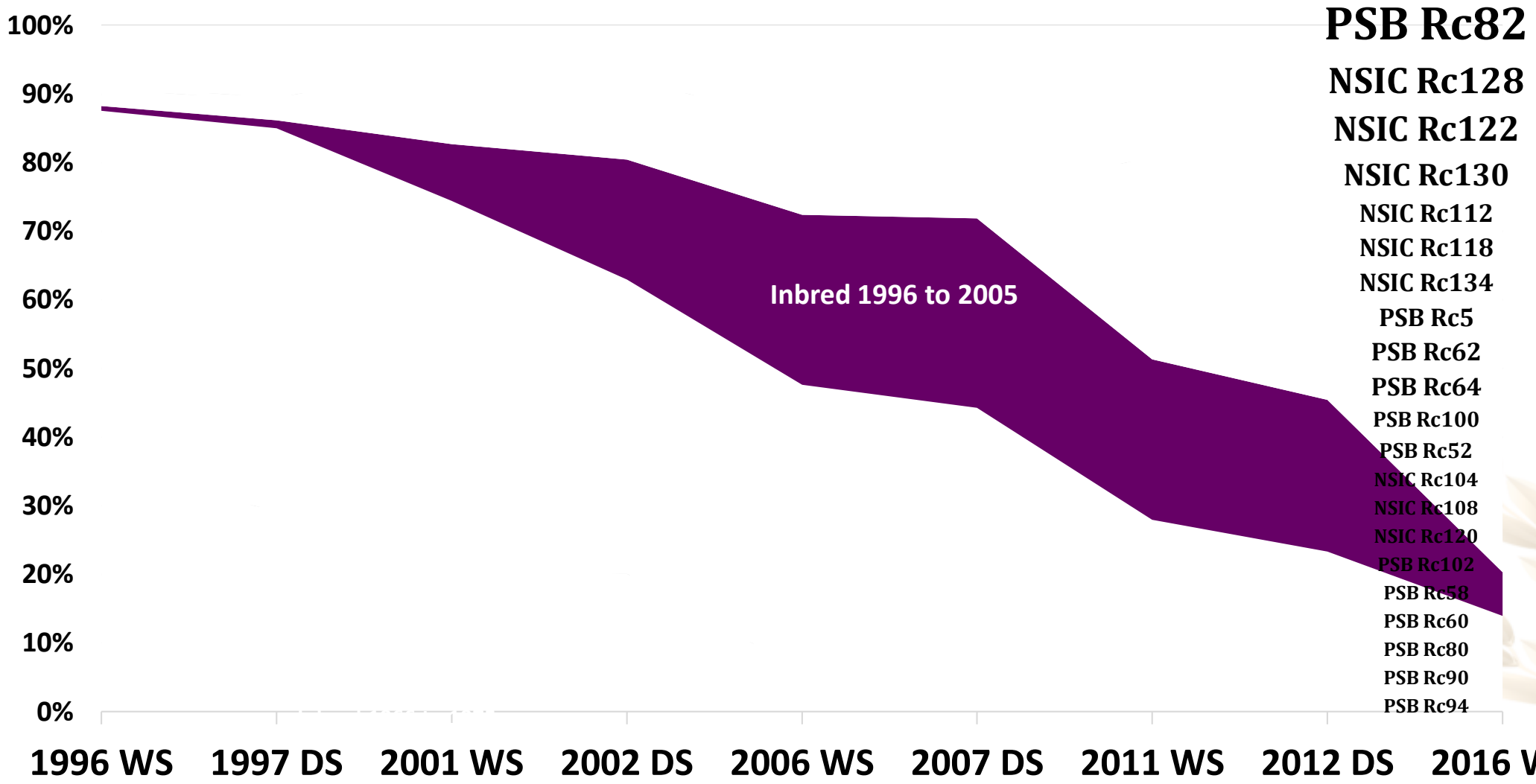
Trends in Variety Group Share



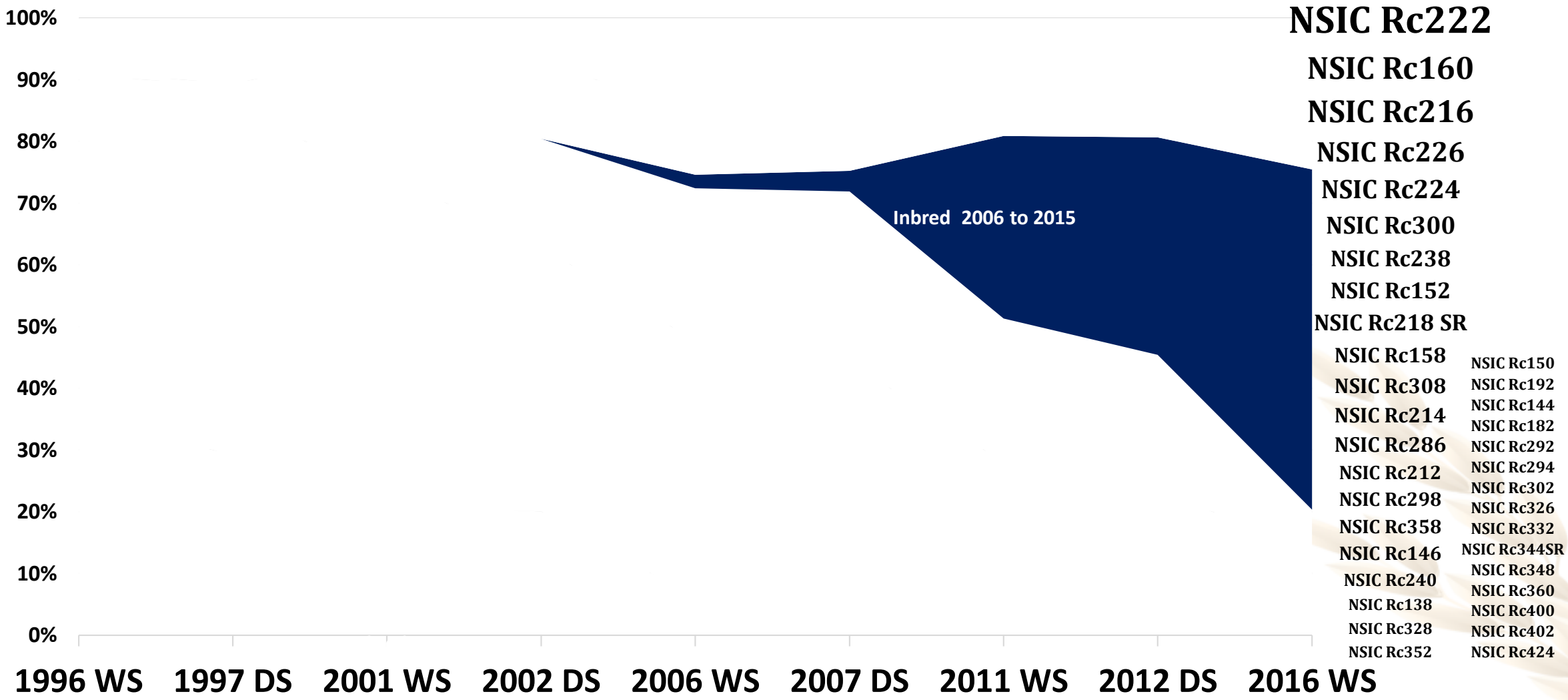
Trends in Variety Group Share



Trends in Variety Group Share



Trends in Variety Group Share



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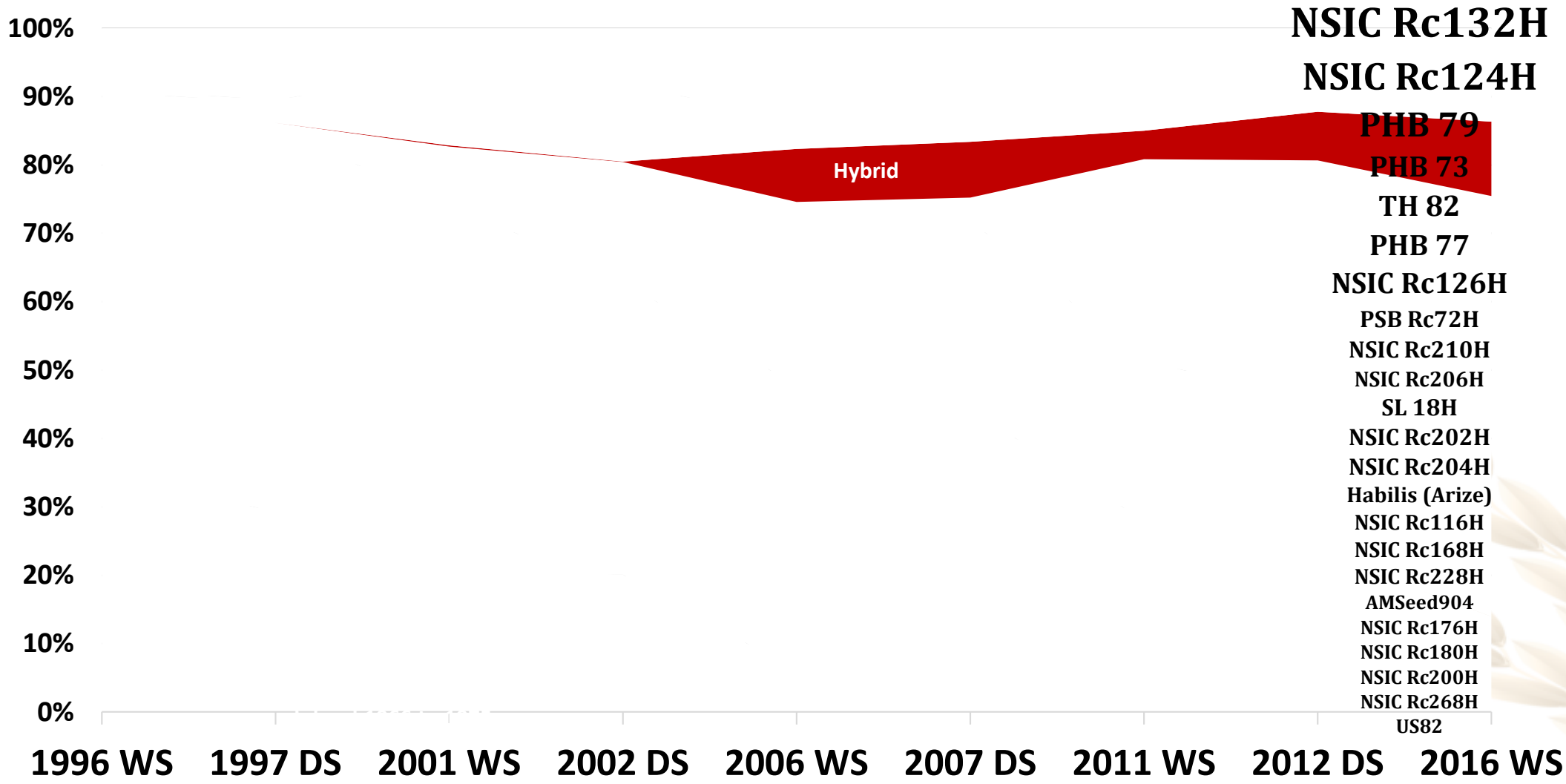

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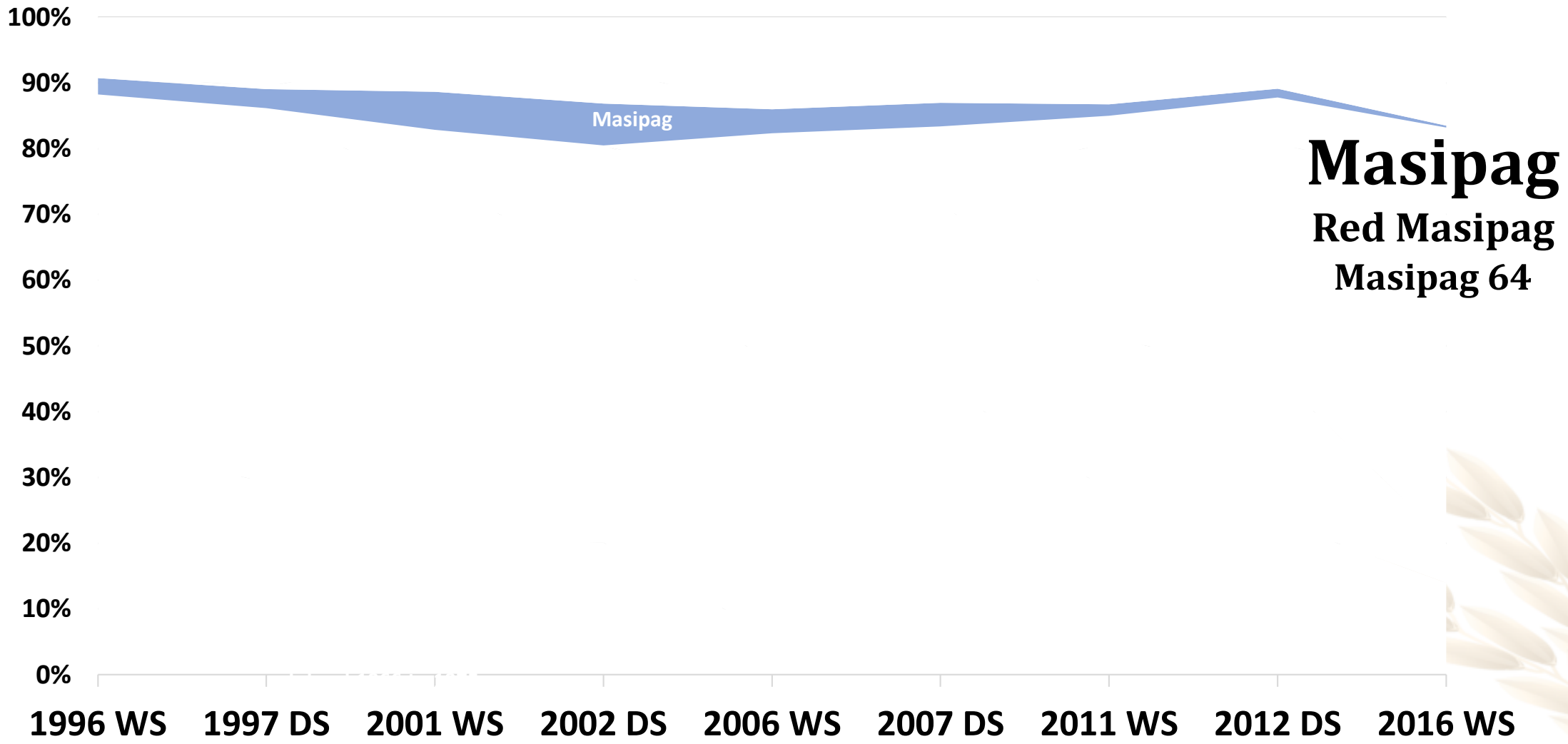
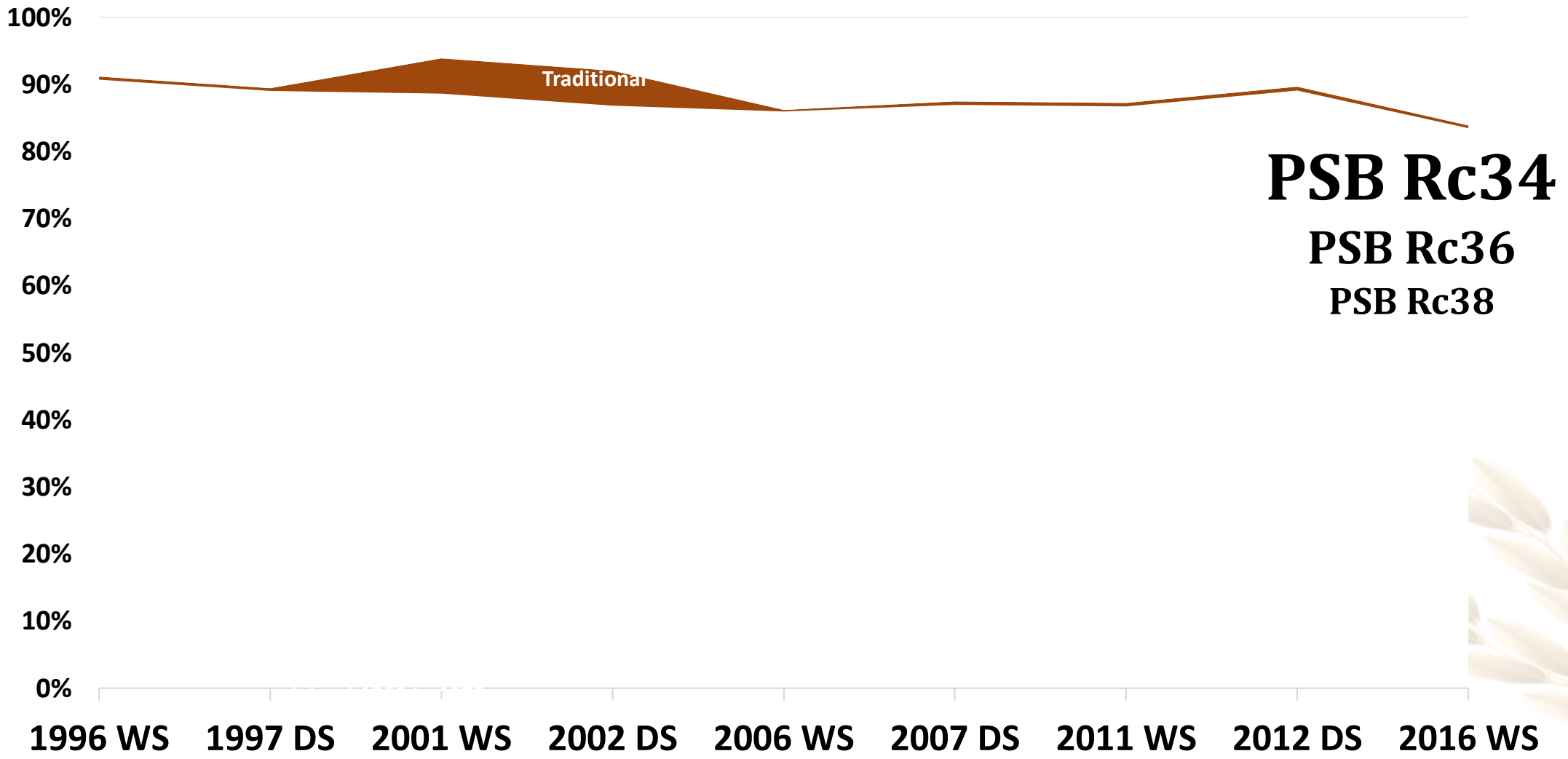


Masipag

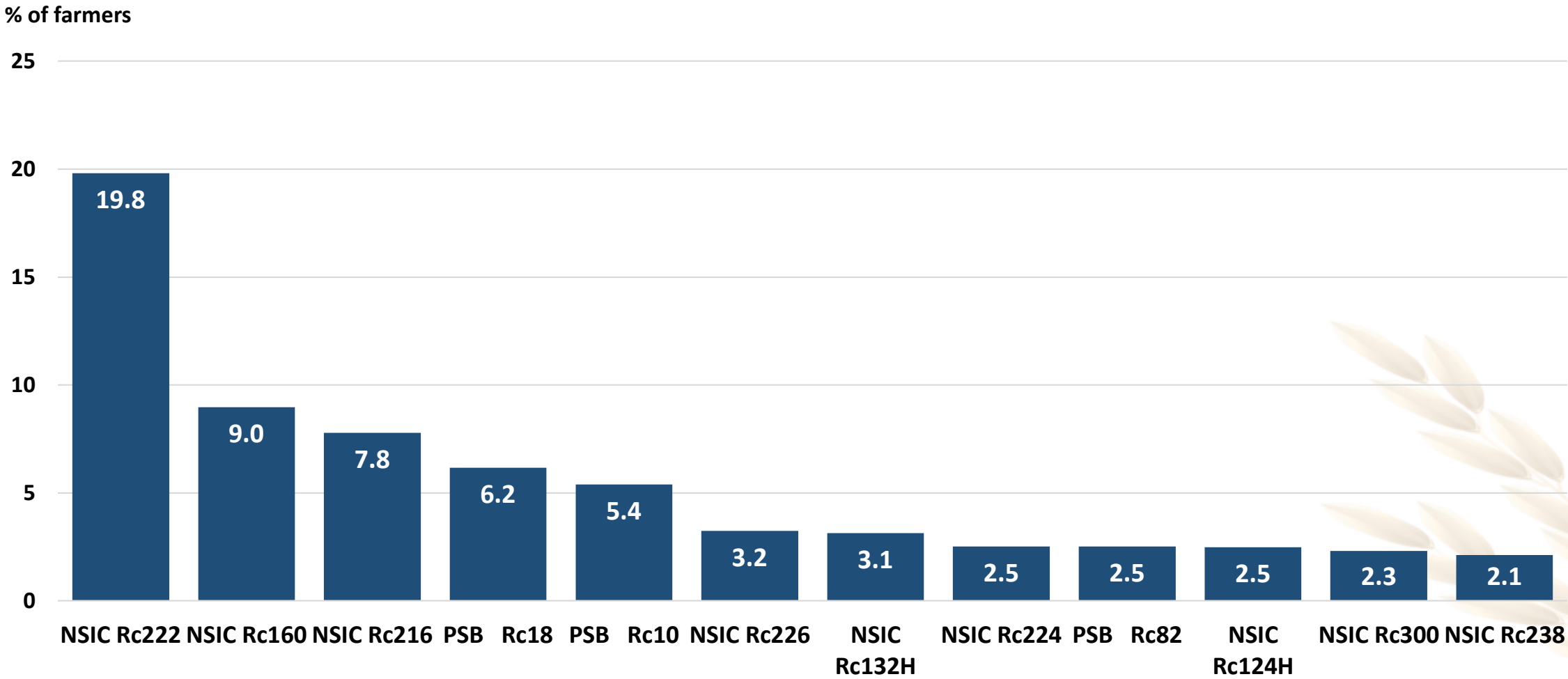
Red Masipag

Masipag 64

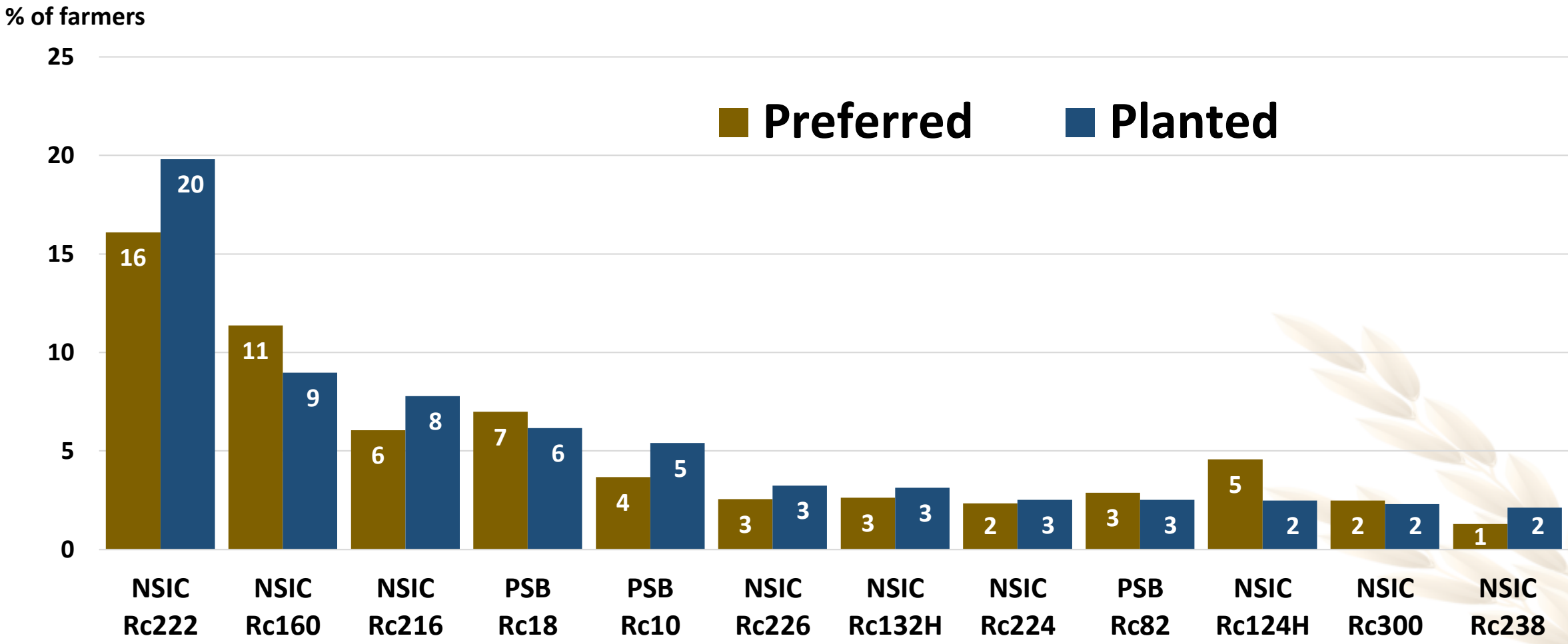
Trends in Variety Group Share



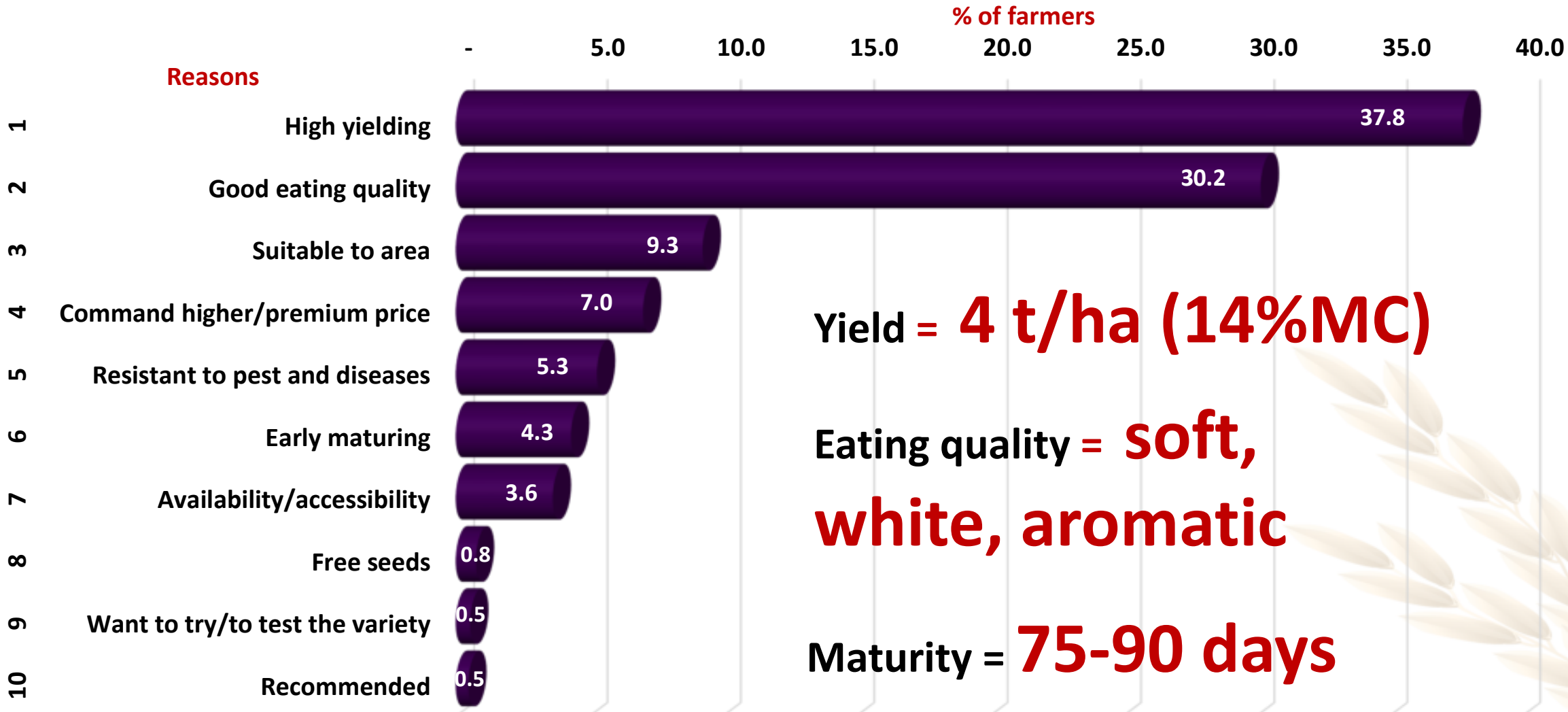
Top Varieties Planted, 2016 WS



Preferred Variety vs. Actual Variety Planted 2016 WS



Top Reasons for Choosing Variety Planted 2016 WS



Yield = **4 t/ha (14%MC)**

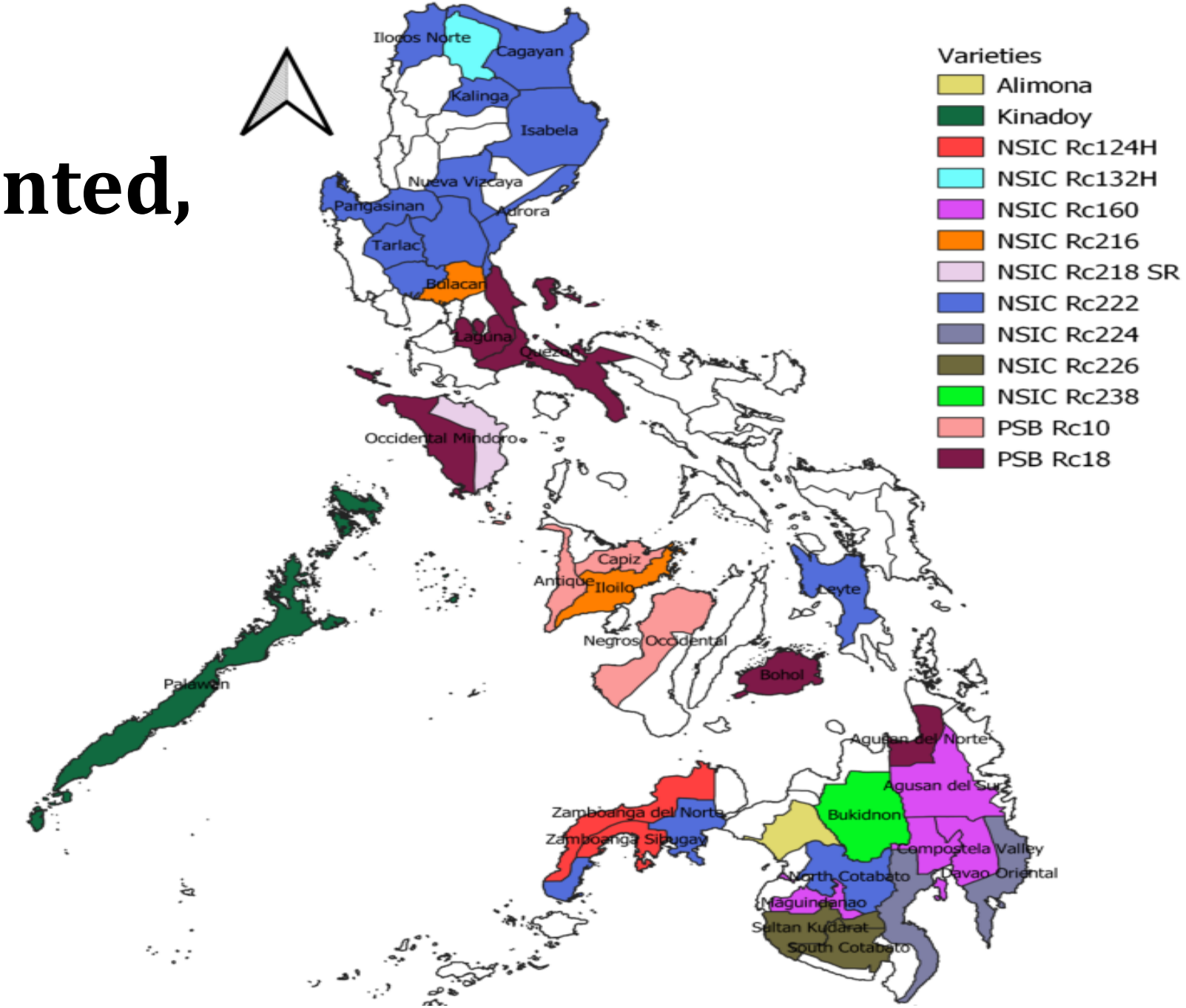
Eating quality = **soft, white, aromatic**

Maturity = **75-90 days**

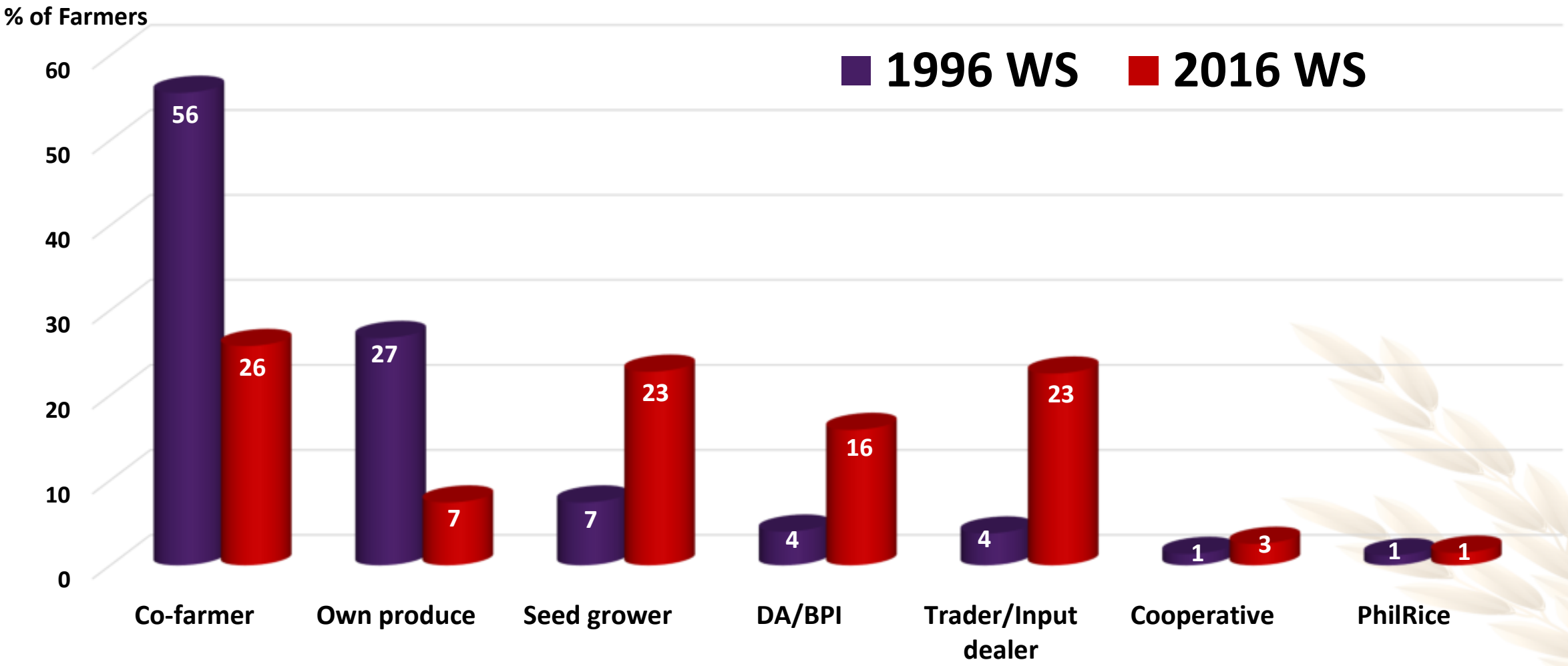
Characteristics of Top Varieties Planted, 2016 WS

Variety	Ave. Yield	Max. Yield	Maturity (DAS)	Resistance (I, MR, R)	% Amylose	% MR	%Head Rice
NSIC Rc222	6.1	10.0	114	Blast(I), BLB(I), Tungro S(I), BPH(MR), GLH(MR), YSB(MR)	24.0 I	68.5 G1	44.7 G2
NSIC Rc160	5.6	8.2	107	Blast(I), BLB(I), Tungro S(S), BPH(MS), GLH(I), YSB(R)	15.7 L	71.1 Pr	42.7 G2
NSIC Rc216	6.0	9.7	112	Blast(S), BLB(I), Tungro S(S), BPH(MR), GLH(MR), YSB(MR)	20.5 I	69.2 G1	50.0 G1
PSB Rc18	5.1	8.1	123	Blast(I), BLB(I), Tungro (I), BPH(I), GLH(I), Stemborer(MS)	21.53 I	65.64 G1	42.08 G2
PSB Rc10	4.8	7.5	106	Blast(R), BLB(I), Tungro (I), BPH(R), GLH(MR), Stemborer(I)	26.86 H	66.62 G2	38.42 G3
NSIC Rc226	6.2	9.8	112	Blast(S), BLB(S), Tungro S(S), BPH1(MR), GLH(MR), YSB(I)	20.3 I	65.9 G1	37.3 G3
NSIC Rc132H	5.9	8.7	113	Blast(R), BLB(I), Tungro (S), BPH(MS), GLH(I), Stemborer(MS)	23.4 I	66.7 G1	41.0 G2
NSIC Rc224	5.8	9.1	111	Blast(I), BLB(S), Tungro S(S), BPH(MR), GLH(MR), YSB(I)	19.0 L	64.7 G2	43.7 G2
PSB Rc82	5.4	12.0	110	Blast(R), BLB(I), Tungro (S), BPH(I), GLH(MS), Stemborer(I)	21.5 I	70.0 Pr	44.7 G2
NSIC Rc124H	5.7	9.1	118	Blast(R), BLB(I), Tungro (S), BPH1(MS), GLH(MS), Stemborer(I)	20.9 I	68.4 G1	42.6 G2
NSIC Rc300	5.7	10.4	115	Blast(S), BLB(I), Tungro (S), BPH(MR), GLH(MR), Stemborer(I)	20.4 I	72.2 Pr	48.9 G1
NSIC Rc238	6.4	10.6	110	Blast(S), BLB(I), Tungro (S), BPH(I), GLH(MR), Stemborer(I)	21.0 I	70.4 Pr	53.7 G1

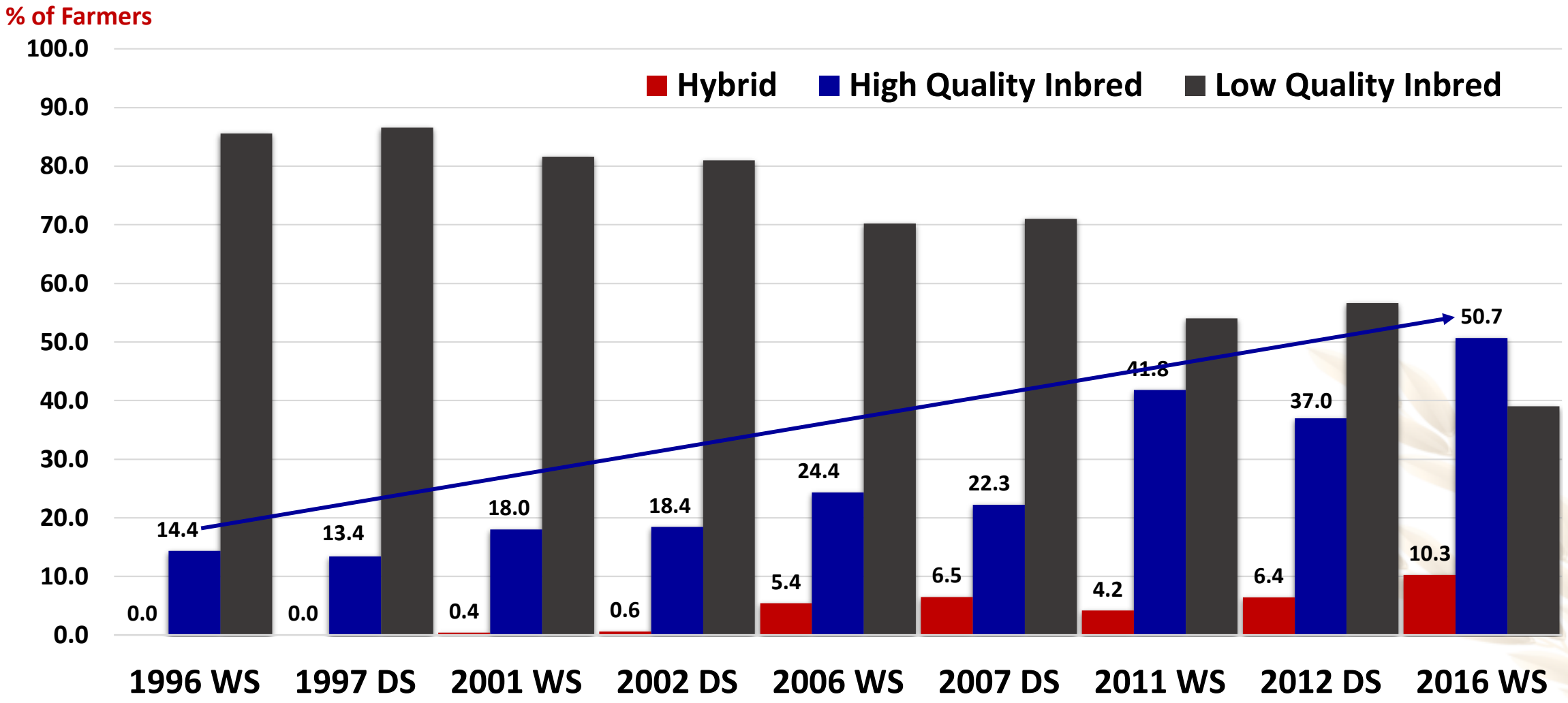
Top Varieties Planted, by Province, 2016 WS



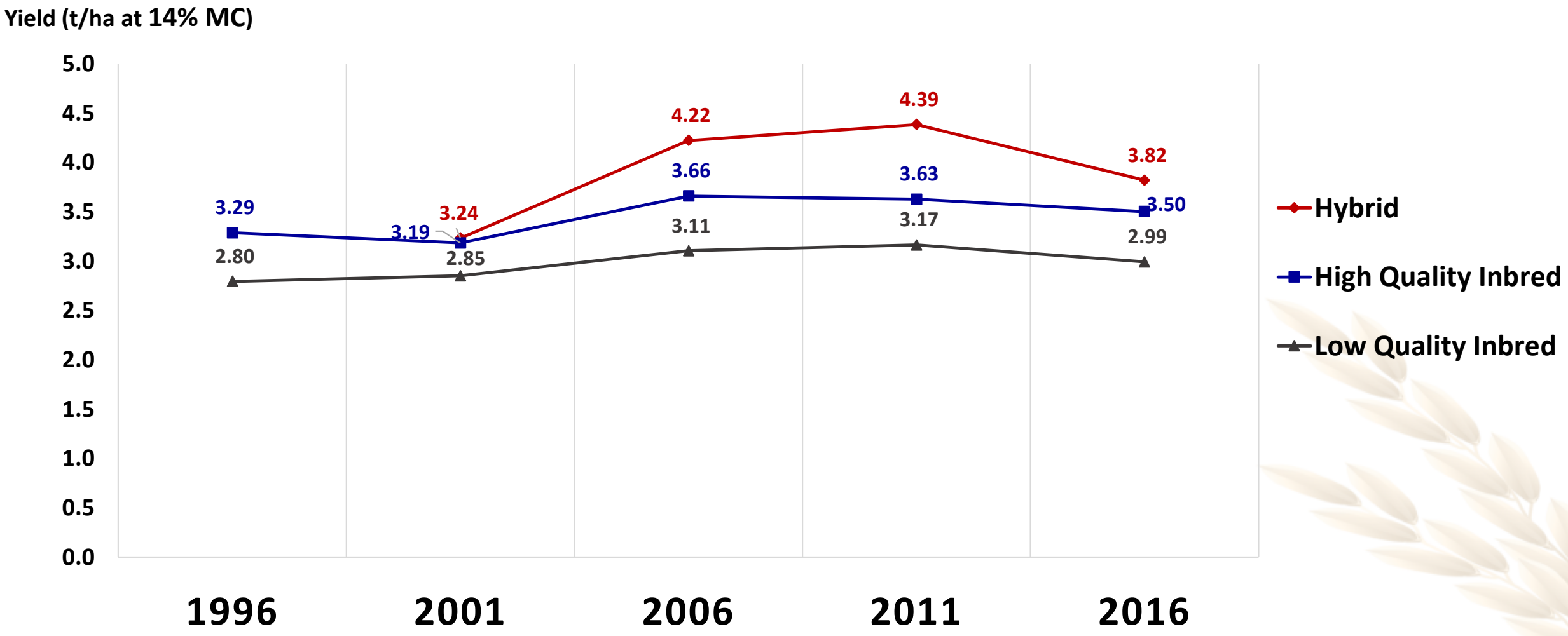
Source of Seeds, 1996 WS – 2016 WS



Use of Quality Seeds, 1996-2016



Yield by Seed Class-Used, Wet Season

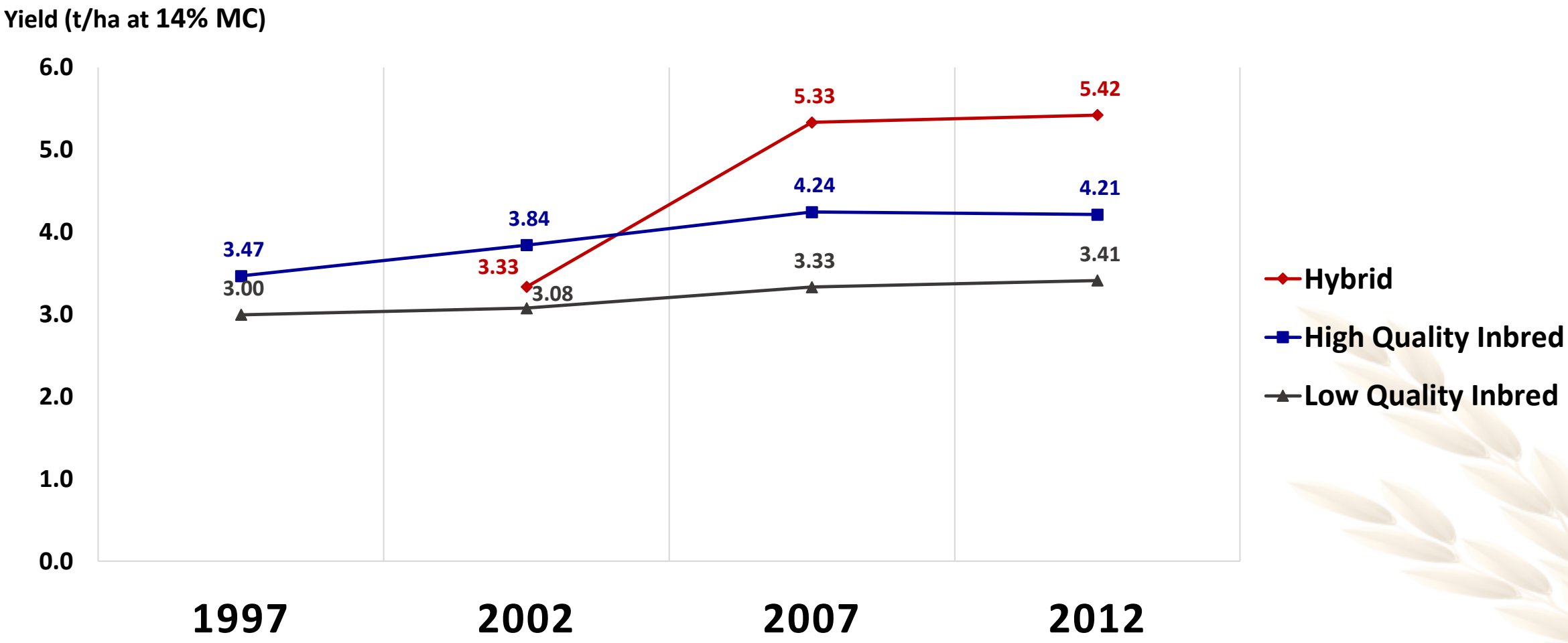


Mean yield difference by seed class-used 2016 WS

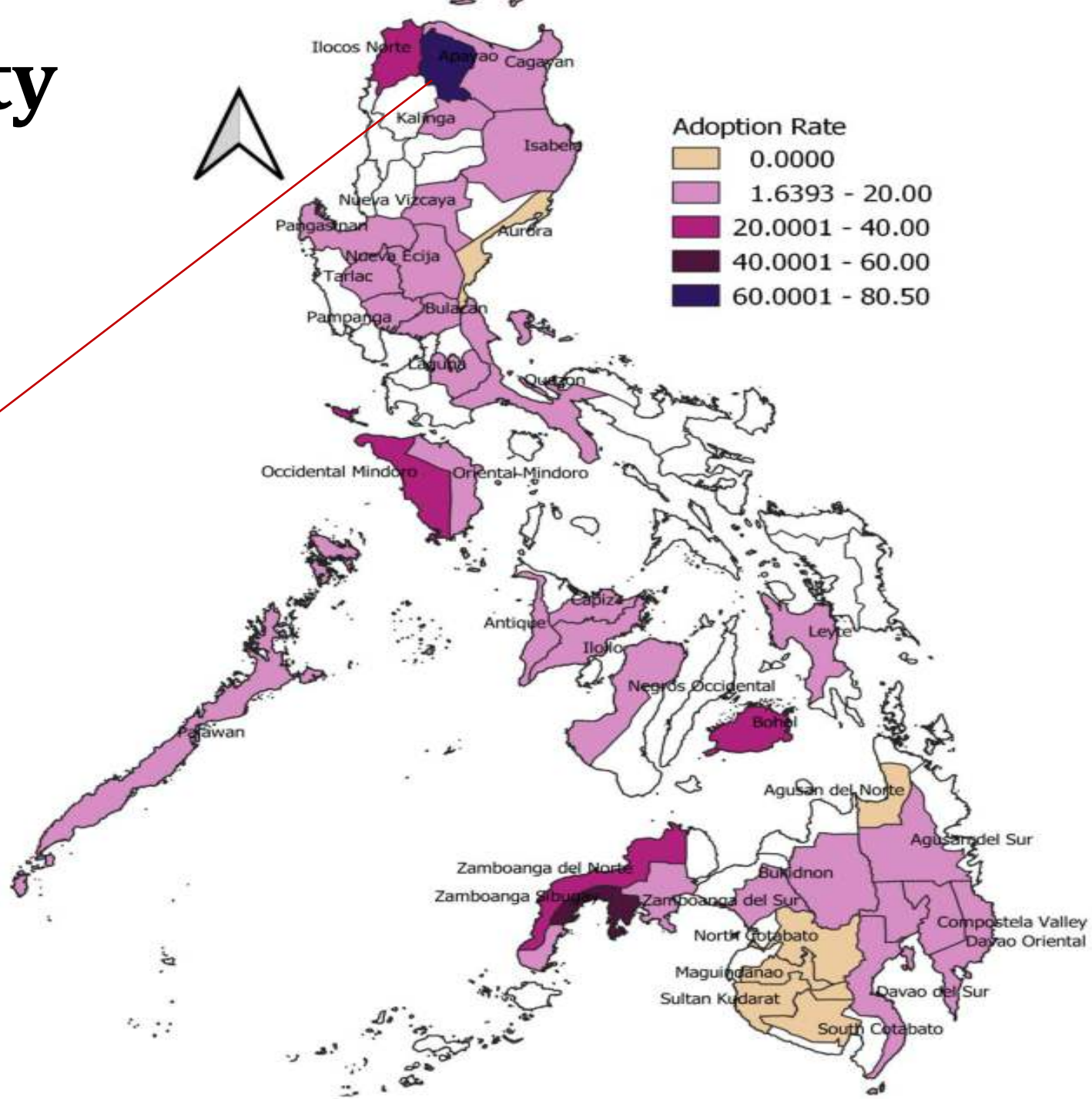
	Hybrid	High Quality Inbred
Hybrid		
High Quality Inbred	**0.32 ****	
Low Quality Inbred	**0.83 *****	**0.51 *****

*** significant at 1%
** significant at 5%
* significant at 10%

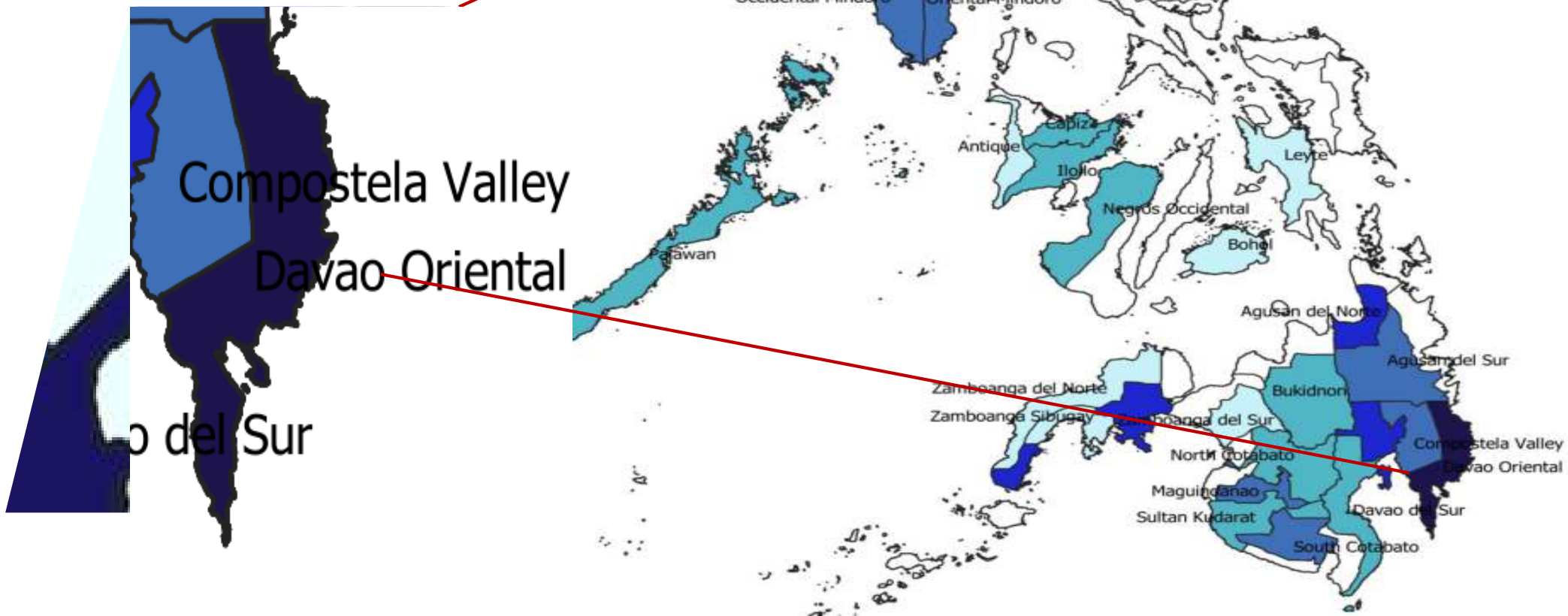
Yield by Seed Class-Used, Dry Season



Hybrid Rice Variety Adoption Rate, by Province, 2016 WS



Certified Seeds Adoption Rate, by Province, 2016 WS



Conclusion and Recommendations

- Varieties bred from 1966-1975 were no longer adopted in 2012; declining trend in use of 1976-2005 inbred varieties from 2006; and in 2016 WS, majority of farmers planted recent released (2006-2015) varieties
- NSIC Rc222 is the top (20%) variety planted in 2016, ranking 1st in 13 out of the 38 covered provinces
- Yield is still the top criteria for farmers, followed by good eating quality. Other preferred characteristics are: resistance to pests and diseases and early-maturing. Farmers also consider the availability and accessibility of seeds.
- Adoption of high quality seeds increased from 14% (1996) to 61% (2016)
- Apayao and Zamboanga Sibugay have the highest adoption rate of hybrid seeds in 2016WS; Aurora and Davao Oriental for high quality inbred seeds.
- Yield of hybrid is significantly different from high and low quality inbred; while high quality inbred yield is significantly different from low quality inbred

Conclusions and Recommendations

- Adoption rate of quality seeds can be used in targeting location specific promotional activities
- Strengthening information dissemination on use of high quality seeds and other seed-related farming practices
- Further study on the characteristics of mostly or widely adopted varieties will help breeders develop new varieties that would cater farmers' preferences

Thank you!

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Thank you!

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