

## NGA Crown Rot Management Survey


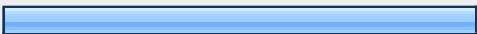

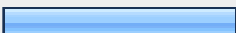

1. On average, in what % of your total cropping area do you believe crown rot is still an IMPORTANT management issue ?				
		Response Average	Response Total	Response Count
% of total cropping area		71.15	3,273	46
	<i>answered question</i>			46
	<i>skipped question</i>			2

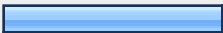

2. Do you believe the level of crown rot RISK has changed for your operation in the last 5-10 years ? (for growers base on your own farm(s), for advisers indicate over your client base)			
		Response Percent	Response Count
No real change	<div><div></div></div>	22.9%	11
Generally INCREASED risk	<div><div></div></div>	35.4%	17
Generally REDUCED risk	<div><div></div></div>	41.7%	20
If your level of risk has changed, please specify why			37
	answered question		48
	skipped question		0

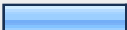
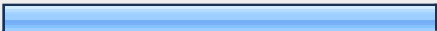


3. How frequently do you think crown rot REDUCES yield and/or grain quality in the following winter cereals ?					
	Losses every year	Losses in most years	Losses rarely	Never an issue	Response Count
Bread wheat	12.8% (6)	66.0% (31)	21.3% (10)	0.0% (0)	47
Barley	14.6% (6)	51.2% (21)	34.1% (14)	2.4% (1)	41
Durum	40.0% (16)	40.0% (16)	15.0% (6)	5.0% (2)	40
	<i>answered question</i>				48
	<i>skipped question</i>				0

4. Please estimate the average yield LOSS impact of crown rot in your BREAD WHEAT operations.							
	No loss	<250 kg/ha	250-500 kg/ha	501-750 kg/ha	751-1000 kg/ha	>1000 kg/ha	Response Count
Yield loss in an average year	4.2% (2)	<b>64.6% (31)</b>	31.3% (15)	0.0% (0)	0.0% (0)	0.0% (0)	48
Yield loss in worst case situation	0.0% (0)	2.2% (1)	23.9% (11)	26.1% (12)	15.2% (7)	<b>32.6% (15)</b>	46
	<i>answered question</i>						<b>48</b>
	<i>skipped question</i>						<b>0</b>

5. Do you measure or assess your crown rot risk level ?					
	Every year	Most years	Only occasionally	Never	Response Count
Currently	<b>60.4% (29)</b>	27.1% (13)	12.5% (6)	0.0% (0)	48
5-10 years ago	8.7% (4)	19.6% (9)	<b>54.3% (25)</b>	17.4% (8)	46
	<i>answered question</i>				<b>48</b>
	<i>skipped question</i>				<b>0</b>

6. If you measure your crown rot risk, what approach(s) do you use ? (please select all that apply)			
		Response Percent	Response Count
I don't assess crown rot risk		0.0%	0
Rotation history and own experience		95.8%	46
Level of whiteheads in previous cereal		72.9%	35
Assess % stem or basal browning		77.1%	37
Samples 'plated out' by laboratory to confirm pathogen		35.4%	17
Other (please specify)		6.3%	3
answered question			48
skipped question			0

7. If you DON'T assess your crown rot risk, why not ? (please select all that apply)			
		Response Percent	Response Count
Too difficult to determine		0.0%	0
Takes too long		0.0%	0
Unsure of relationship between inoculum level and risk		0.0%	0
Can't do anything about it anyway		33.3%	1
Other (please specify)		66.7%	2
answered question			3
skipped question			45

8. Has the NGA/NSW DPI activity increased your UNDERSTANDING of the need to monitor inoculum levels ?			
		Response Percent	Response Count
Yes, no more work needed		18.8%	9
Yes but more work still needed		66.7%	32
No		8.3%	4
Unsure		6.3%	3
Additional work required (please specify)			17
<b>answered question</b>			<b>48</b>
<b>skipped question</b>			<b>0</b>

9. How would you rate the following crops in their ability to HOST the crown rot fungus ?						
	Very susceptible	Susceptible	Highly resistant	Non host	Rating Average	Response Count
Bread wheat	31.9% (15)	66.0% (31)	2.1% (1)	0.0% (0)	1.70	47
Barley	21.3% (10)	78.7% (37)	0.0% (0)	0.0% (0)	1.79	47
Durum wheat	90.7% (39)	9.3% (4)	0.0% (0)	0.0% (0)	1.09	43
Sorghum	0.0% (0)	14.3% (6)	31.0% (13)	54.8% (23)	3.40	42
Chickpea	0.0% (0)	0.0% (0)	4.5% (2)	95.5% (42)	3.95	44
<b>answered question</b>						<b>47</b>
<b>skipped question</b>						<b>1</b>

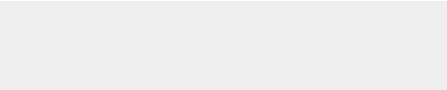
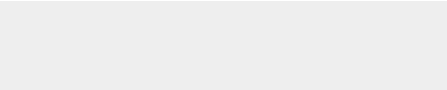
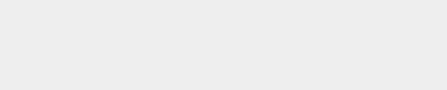
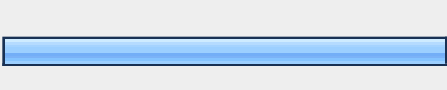
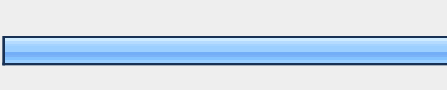
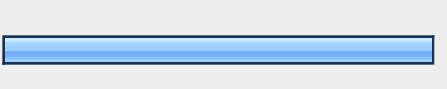
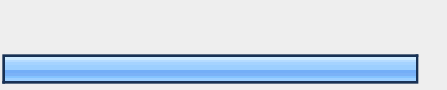
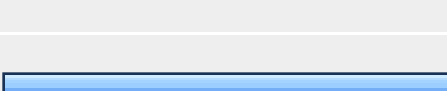

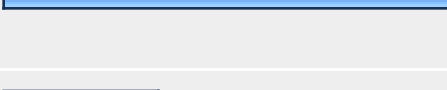
10. How would you rate the following crops in their potential YIELD LOSS due to crown rot in a disease CONDUCTIVE season ?							
	No yield loss	<15% loss	15-30% loss	31-45% loss	46-60% loss	>60% loss	Response Count
Bread wheat	0.0% (0)	8.7% (4)	<b>47.8% (22)</b>	21.7% (10)	15.2% (7)	6.5% (3)	46
Barley	0.0% (0)	32.6% (15)	<b>45.7% (21)</b>	15.2% (7)	4.3% (2)	2.2% (1)	46
Durum wheat	0.0% (0)	2.4% (1)	9.8% (4)	17.1% (7)	34.1% (14)	<b>36.6% (15)</b>	41
	<i>answered question</i>						<b>46</b>
	<i>skipped question</i>						<b>2</b>

11. How would you rate the following crops in their potential GRAIN QUALITY LOSS due to crown rot in a disease CONDUCTIVE season ?					
	No quality loss	Limited quality loss (unlikely to change classification)	Significant quality loss (likely to change classification)	Extreme quality loss (very likely to change classification)	Response Count
Bread wheat	2.2% (1)	15.6% (7)	<b>68.9% (31)</b>	13.3% (6)	45
Barley	4.4% (2)	<b>51.1% (23)</b>	42.2% (19)	2.2% (1)	45
Durum wheat	0.0% (0)	2.4% (1)	34.1% (14)	<b>63.4% (26)</b>	41
	<i>answered question</i>				<b>46</b>
	<i>skipped question</i>				<b>2</b>



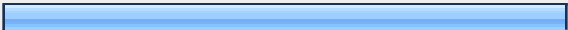

**12. Previous research has indicated that the % of winter cereal plants with basal browning can broadly indicate level of risk, where <10% of plants with basal browning is LOW risk, 11-25% is MODERATE risk and >25% is HIGH risk. Please rate the value of the following tools in LOW to MODERATE crown rot risk situations ?**

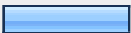
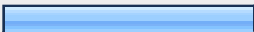

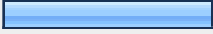
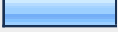
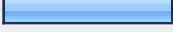

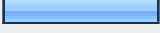
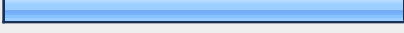
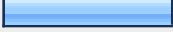
	No value	Low value	Moderate value	High value	Response Count
Inter-row sowing	2.1% (1)	29.8% (14)	<b>48.9% (23)</b>	19.1% (9)	47
Winter cereal CROP choice (ie barley v bread wheat v durum)	0.0% (0)	12.8% (6)	<b>53.2% (25)</b>	34.0% (16)	47
Winter cereal VARIETY choice (eg within bread wheat)	8.5% (4)	23.4% (11)	<b>42.6% (20)</b>	25.5% (12)	47
Monitoring inoculum levels	0.0% (0)	8.7% (4)	41.3% (19)	<b>50.0% (23)</b>	46
Broadleaf winter crop rotations	0.0% (0)	2.2% (1)	8.7% (4)	<b>89.1% (41)</b>	46
Grass weed control in-crop and in fallow	0.0% (0)	10.6% (5)	34.0% (16)	<b>55.3% (26)</b>	47
Summer crop rotations	0.0% (0)	4.3% (2)	21.7% (10)	<b>73.9% (34)</b>	46
Cultivation	19.1% (9)	<b>36.2% (17)</b>	27.7% (13)	17.0% (8)	47
Nutrition levels eg Nitrogen and Zinc	4.3% (2)	30.4% (14)	<b>52.2% (24)</b>	13.0% (6)	46
Burning stubble	21.7% (10)	<b>41.3% (19)</b>	28.3% (13)	8.7% (4)	46
Physical stubble destruction eg slashing/ chopping	34.8% (16)	<b>39.1% (18)</b>	15.2% (7)	10.9% (5)	46
Monitoring soil moisture	6.7% (3)	24.4% (11)	31.1% (14)	<b>37.8% (17)</b>	45
	<b>answered question</b>				<b>47</b>
	<b>skipped question</b>				<b>1</b>

13. Please rate the value of the following tools in HIGH crown rot risk situations ?					
	No value	Low value	Moderate value	High value	Response Count
Inter-row sowing	10.9% (5)	21.7% (10)	<b>41.3% (19)</b>	26.1% (12)	46
Winter cereal CROP choice (ie barley v bread wheat v durum)	10.9% (5)	26.1% (12)	26.1% (12)	<b>37.0% (17)</b>	46
Winter cereal VARIETY choice (eg within bread wheat)	17.4% (8)	23.9% (11)	<b>34.8% (16)</b>	23.9% (11)	46
Monitoring inoculum levels	4.3% (2)	10.9% (5)	30.4% (14)	<b>54.3% (25)</b>	46
Broadleaf winter crop rotations	0.0% (0)	2.1% (1)	10.6% (5)	<b>87.2% (41)</b>	47
Grass weed control in-crop and in fallow	4.3% (2)	14.9% (7)	34.0% (16)	<b>46.8% (22)</b>	47
Summer crop rotations	0.0% (0)	2.3% (1)	6.8% (3)	<b>90.9% (40)</b>	44
Cultivation	17.4% (8)	<b>30.4% (14)</b>	26.1% (12)	26.1% (12)	46
Nutrition levels eg Nitrogen and Zinc	6.7% (3)	35.6% (16)	<b>37.8% (17)</b>	20.0% (9)	45
Burning stubble	19.6% (9)	<b>28.3% (13)</b>	<b>28.3% (13)</b>	23.9% (11)	46
Physical stubble destruction eg slashing/ chopping	<b>41.3% (19)</b>	37.0% (17)	13.0% (6)	8.7% (4)	46
Monitoring soil moisture	6.8% (3)	27.3% (12)	29.5% (13)	<b>36.4% (16)</b>	44
	<b>answered question</b>				<b>47</b>
	<b>skipped question</b>				<b>1</b>

14. In what areas has the NGA/NSW DPI project activity improved your crown rot UNDERSTANDING ? (please select all that apply)			
		Response Percent	Response Count
No change - I still have a poor understanding		0.0%	0
No change - none of the information actually new		0.0%	0
No change - I already had a very good understanding		0.0%	0
Validated the fit and benefit of inter-row sowing		68.1%	32
<b>Validated crown rot yield impact across different cereals</b>		<b>91.5%</b>	<b>43</b>
Improved understanding of varietal rating system		66.0%	31
Quantified the difference in yield and quality impact within wheat varieties		63.8%	30
Highlighted importance of monitoring inoculum levels		70.2%	33
Reinforced the need for effective rotation as the key management tool		87.2%	41
Other (please specify)		23.4%	11
		<b>answered question</b>	<b>47</b>
		<b>skipped question</b>	<b>1</b>



15. Has the NGA/ NSW DPI activity resulted in any change of crown rot management PRACTICE in your operations ?			
		Response Percent	Response Count
No change made and none planned		2.2%	1
No change yet but considering		8.7%	4
Yes, changes already adopted		87.0%	40
Unsure		2.2%	1
If you are considering or have already implemented a change, what has it been ?			28
	<b>answered question</b>		<b>46</b>
	<b>skipped question</b>		<b>2</b>

16. What do YOU believe are the BIGGEST LIMITATIONS to effective crown rot management in your system ? (please select all that apply)			
		Response Percent	Response Count
Actual disease understanding		19.1%	9
Low confidence in SUMMER crop reliability		38.3%	18
Low confidence in actual disease management benefit from SUMMER crop rotation		14.9%	7
Lack of suitable broadleaf winter crop options		31.9%	15
Low confidence in WINTER crop reliability		17.0%	8
Low confidence in actual disease management benefit from WINTER crop rotation		25.5%	12
Wheat variety availability		55.3%	26
Need for a circuit breaker for paddocks with very high disease levels		23.4%	11
<b>Slow stubble breakdown</b>		<b>61.7%</b>	<b>29</b>
Other (please specify)		25.5%	12
<b>answered question</b>			<b>47</b>
<b>skipped question</b>			<b>1</b>

17. How frequently have aphids been a winter cereal management issue for you in the last 5 years ?					
	Every year	Most years	Only occasionally	Never	Response Count
Durum	2.5% (1)	12.5% (5)	<b>60.0% (24)</b>	25.0% (10)	40
Bread wheat	2.2% (1)	20.0% (9)	<b>60.0% (27)</b>	17.8% (8)	45
Barley	23.3% (10)	<b>34.9% (15)</b>	<b>34.9% (15)</b>	7.0% (3)	43
	<b>answered question</b>				<b>46</b>
	<b>skipped question</b>				<b>2</b>

18. Please indicate your frequency of use of the following aphid management practices. (please select all that apply)					
	Every year	Most years	Only occasionally	Never	Response Count
Aphid pressure actively monitored	28.3% (13)	<b>43.5% (20)</b>	19.6% (9)	8.7% (4)	46
Foliar spray with 'hard' chemistry (eg dimethoate)	2.3% (1)	18.2% (8)	<b>52.3% (23)</b>	27.3% (12)	44
Foliar spray with 'soft' chemistry (eg pirimicarb)	4.4% (2)	11.1% (5)	<b>42.2% (19)</b>	<b>42.2% (19)</b>	45
Aphid active seed treatment (imidacloprid)	11.6% (5)	16.3% (7)	<b>39.5% (17)</b>	32.6% (14)	43
No insecticide control used	6.5% (2)	<b>45.2% (14)</b>	32.3% (10)	16.1% (5)	31
	Other (please specify)				8
	<b>answered question</b>				<b>46</b>
	<b>skipped question</b>				<b>2</b>

19. Please rate your level of current knowledge in the following areas.					
	Poor	Low	Moderate	High	Response Count
Yield and grain quality impact of aphids in cereals	26.1% (12)	<b>52.2% (24)</b>	21.7% (10)	0.0% (0)	46
Appropriate aphid thresholds/timings	26.1% (12)	<b>39.1% (18)</b>	34.8% (16)	0.0% (0)	46
Understanding of pest biology and population dynamics	21.7% (10)	<b>54.3% (25)</b>	23.9% (11)	0.0% (0)	46
Potential fit of varied management approaches	19.6% (9)	<b>50.0% (23)</b>	30.4% (14)	0.0% (0)	46
	<b><i>answered question</i></b>				<b>46</b>
	<b><i>skipped question</i></b>				<b>2</b>

20. The next Validator issue is due for completion by the end of June 2009. In this publication NGA initiated project results are presented at 3 different levels: a one page project summary, detailed technical results averaged over all trials as well as individual trial results. This next edition will include summaries of a range of winter and summer projects conducted during 2008 and 2009. Please indicate how valuable YOU find the following NGA communication approaches

	Excellent	Good	OK	Poor	Rating Average	Response Count
Validator	41.3% (19)	<b>47.8% (22)</b>	10.9% (5)	0.0% (0)	1.70	46
GRDC update PRESENTATIONS	<b>48.9% (23)</b>	40.4% (19)	6.4% (3)	4.3% (2)	1.66	47
GRDC update PAPERS	34.8% (16)	<b>52.2% (24)</b>	10.9% (5)	2.2% (1)	1.80	46
NGA project 'briefs' - quarterly style newsletter	31.1% (14)	<b>44.4% (20)</b>	24.4% (11)	0.0% (0)	1.93	45
Project presentations at LCC meetings	<b>60.0% (27)</b>	28.9% (13)	11.1% (5)	0.0% (0)	1.51	45
Regular Consultants' Corner articles in Australian Grain	13.3% (6)	<b>44.4% (20)</b>	33.3% (15)	8.9% (4)	2.38	45
Articles in Groundcover	23.9% (11)	<b>41.3% (19)</b>	30.4% (14)	4.3% (2)	2.15	46
Articles in external publications eg Australian Farm Journal, The Land etc	8.5% (4)	36.2% (17)	<b>38.3% (18)</b>	17.0% (8)	2.64	47
What other methods of communication would you prefer we use ?						15
	<b>answered question</b>					<b>47</b>
	<b>skipped question</b>					<b>1</b>

**21. Part of the role of the Local Consultative Committees is to help extend information and results to clients or other growers. Please indicate how valuable YOUR GROWER NETWORK find the following NGA communication approaches ?**

	Excellent	Good	OK	Poor	Rating Average	Response Count
Validator	25.0% (11)	<b>45.5% (20)</b>	22.7% (10)	6.8% (3)	2.11	44
GRDC update PRESENTATIONS	20.5% (9)	<b>45.5% (20)</b>	27.3% (12)	6.8% (3)	2.20	44
GRDC update PAPERS	14.6% (6)	<b>41.5% (17)</b>	31.7% (13)	12.2% (5)	2.41	41
NGA project 'briefs' - quarterly style newsletter	16.7% (7)	<b>42.9% (18)</b>	35.7% (15)	4.8% (2)	2.29	42
Project presentations at LCC meetings	26.2% (11)	<b>38.1% (16)</b>	16.7% (7)	19.0% (8)	2.29	42
Regular Consultants' Corner articles in Australian Grain	9.5% (4)	<b>45.2% (19)</b>	33.3% (14)	11.9% (5)	2.48	42
Articles in Groundcover	18.6% (8)	<b>51.2% (22)</b>	25.6% (11)	4.7% (2)	2.16	43
Articles in external publications eg Australian Farm Journal, The Land etc	14.0% (6)	<b>48.8% (21)</b>	27.9% (12)	9.3% (4)	2.33	43
What other methods of communication would they prefer we use ?						12
	<b>answered question</b>					<b>44</b>
	<b>skipped question</b>					<b>4</b>