

SUMMARY - SURVEY OF CEREAL AREAS AND VOLUMES – JULY 1, 2017

The objective of this AIMI survey of growers was to determine, as at July 1, 2017:

- the final size of the 2017 harvest of wheat, barley and oats
- sales channels and levels of on-farm storage, both sold and unsold, of the 2017 harvest
- autumn sowings of wheat, barley and oats, and sowing intentions for the spring of 2017

Data from 113 survey farms as at July 1, 2017 were scaled up to the national level using the most recent Agricultural Production Statistics. As with all surveys, there is a margin of error which needs to be considered in relation to this report. These figures reflect the position as at the 1st July 2017 and there will have been changes since this time. Note also that grain carried over from the 2016 harvest was not estimated in this survey, although only a small percentage was left on farms; for a complete picture, this carry-over grain would need to be added to the figures reported herein.

Key Points at 1 July 2017 (figures have been rounded to nearest 100):

- Average yields were up on last season for all six crops.
- Unsold stocks of feed barley, milling wheat, milling oats and feed oats are higher but feed wheat stocks are much lower than this time last year.
- While wet weather has delayed sowing in many regions, the area sown in wheat and barley is expected to increase this season.

Final estimated average yields were up this season compared to last season for all six crops, with milling wheat yields up 12%, feed barley yields up 8%, and milling and feed oats yields up 13% and 10% respectively, on last season. The tonnages of unsold feed grain were estimated at 63,600 t of feed wheat and 89,800 t of feed barley, as at 1 July 2017; in addition, there was an estimated 25,000 t of unsold milling wheat. For feed barley, the 2018 harvest hectares are predicted to be 51% up on the 2017 harvest hectares (which is a reversal of the continuing decline in sowings over the two previous seasons). When totalled over all six cereal crops, the 2018 harvest hectares are predicted to be 13% up on the 2017 harvest hectares (from 108,400 hectares to 122,100 hectares).

Milling wheat: Estimated final total tonnage (147,900 t) was up 26% compared to last year's harvest. Of this total, 83% has been sold (122,900 t), although most of the sold grain is still stored on farm (62%). The amount of unsold grain is 25,000 tonnes (17%), which is more than at the same time last year, 1 July 2016 (11,700 t). The amount of unsold grain decreased between 1 April and 1 July 2017 by 9,700 t (or 28%), as compared to a 12,600 tonne decrease in unsold grain between the same dates last year.

Feed wheat: Estimated final total tonnage (373,200 t) was up 9% compared to last year's harvest. Of this total, 83% has been sold (309,600 t), with 53% of the sold grain still stored on farm. The amount of unsold grain is 63,600 tonnes (17%), which is less than at the same time last year, 1 July 2016 (101,800 t). The amount of unsold grain decreased between 1 April and 1 July 2017 (down by 25,600 t, or 29%), as compared to a 53,400 tonne decrease in unsold grain between the same dates last year.

Feed barley: Estimated final total tonnage (254,600 t) was down 8% compared to last year. Of this total tonnage 65% has been sold (164,800 t), with 39% of the sold grain still stored on farm. The amount of unsold grain is 89,800 tonnes (35%), which is slightly up on the same time last year, 1 July 2016 (82,600 t). The amount of unsold grain decreased between 1 April and 1 July 2017 (down by 30,700 t, or 26%), as compared to a 60,300 tonne decrease in unsold grain between the same dates last year.

For other cereals: Compared to last year, estimated final total tonnage for malting barley (87,100 t) was down by 1%, milling oats (39,400 t) was up by 67%, and feed oats (18,500 t) was down by 20%. Malting barley had 4% of the total harvest unsold (3,400 t) while milling oats and feed oats had 10% (3,800 t) and 28% (5,200 t) unsold, respectively, as at 1 July, 2017. Of the sold grain, 45% of malting barley was still on farm, as compared to 94% of milling oats and 54% of feed oats. Between 1 April and 1 July 2017, the amount of unsold grain decreased by 34% for malting barley, remained the same for milling oats, and *increased* by 14% for feed oats.

Sowings and sowing intentions: The area sown in autumn/winter wheat or barley, as at 1 July 2017, was down 15% overall on autumn sowings plus intentions as at 1 April 2017, with some growers saying it had been too wet to sow. However, when autumn/winter sowings were combined with spring sowing intentions, the area sown or to be sown in wheat or barley was predicted to be up overall by 18% as compared to the area harvested in 2017, or up by 15% on the area harvested in 2016. Over the two-year period (2016 harvest to predicted 2018 harvest), the harvest area for feed barley is predicted to increase by 29%, while the harvest area for feed wheat is predicted to increase by 11% and the harvest area for milling wheat is predicted to increase by 6%. Over this same period, the harvest areas for malting barley, milling oats and feed oats are predicted to decrease by 13%, 20% and 54% respectively. When totalled over all six cereal crops, the 2018 harvest hectares are predicted to be 13% up on the 2017 harvest hectares (from 108,400 hectares to 122,100 hectares).

Milling wheat (Tonnes)

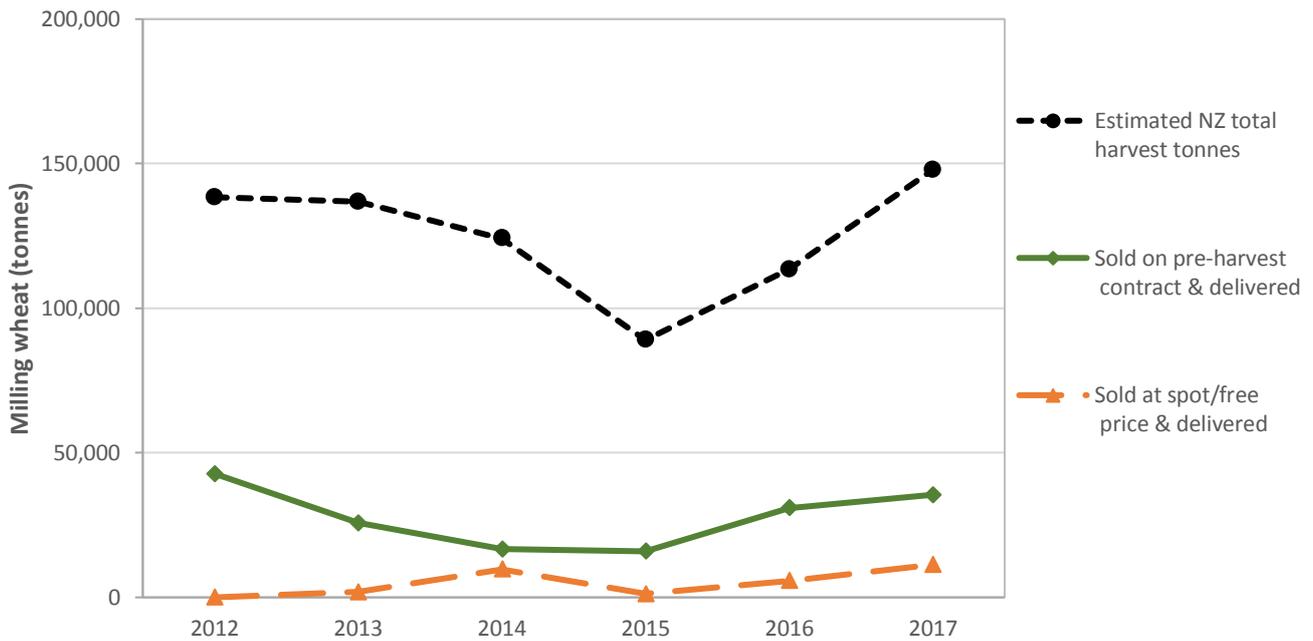


Figure 1a. NZ harvest tonnage and sales channels for Milling wheat (tonnes) as estimated on July 1 each year. (Note: All categories relate to that season’s harvest, excluding carryover stock. “Sold at spot/free price and delivered” includes grain sold for feed. Historical data are sourced from previous AIMI July Reports. In 2012 “Sold at spot/free price and delivered” was zero since the question was simply “sold and delivered”, with responses reported as “Sold on pre-harvest contract and delivered”; also, there was no question on “grain sold for feed”.)

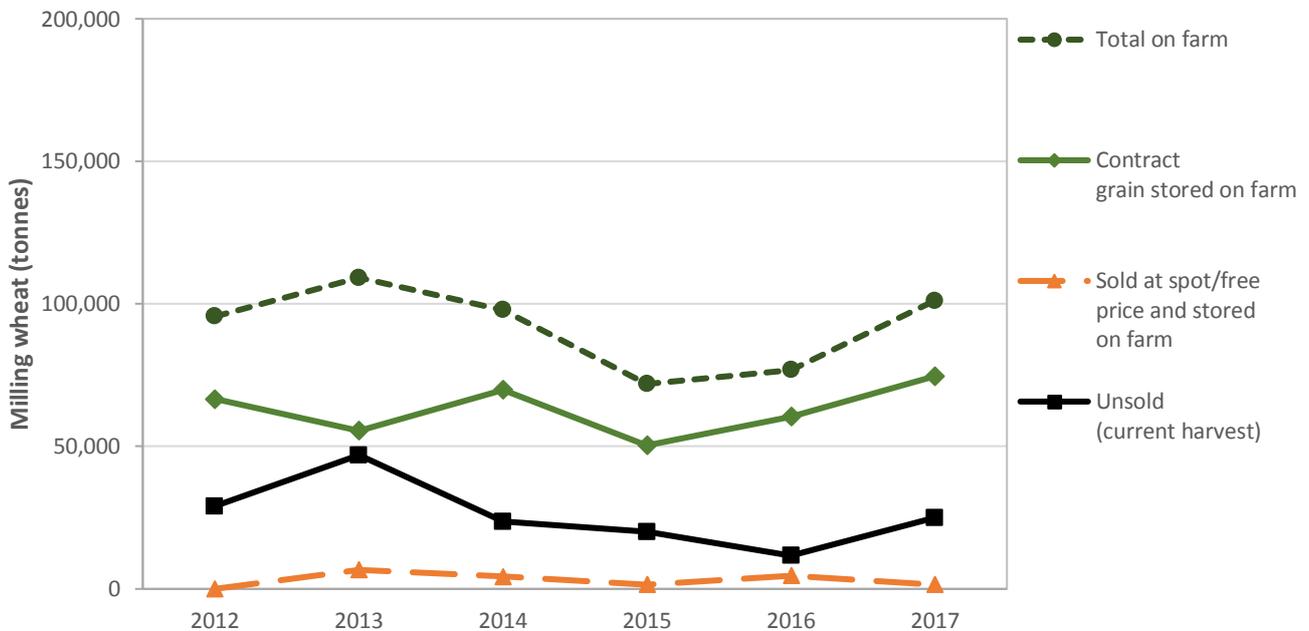


Figure 1b. NZ stocks on farm for Milling wheat (tonnes) as estimated on July 1 each year. (Note: Carryover stock from the previous season is excluded. Historical data are sourced from previous AIMI July Reports. In 2012 “Sold at spot/free price and stored on farm” was zero since the question was simply “sold and stored on farm”, with responses reported as “Contract grain stored on farm”.)

Feed Wheat (Tonnes)

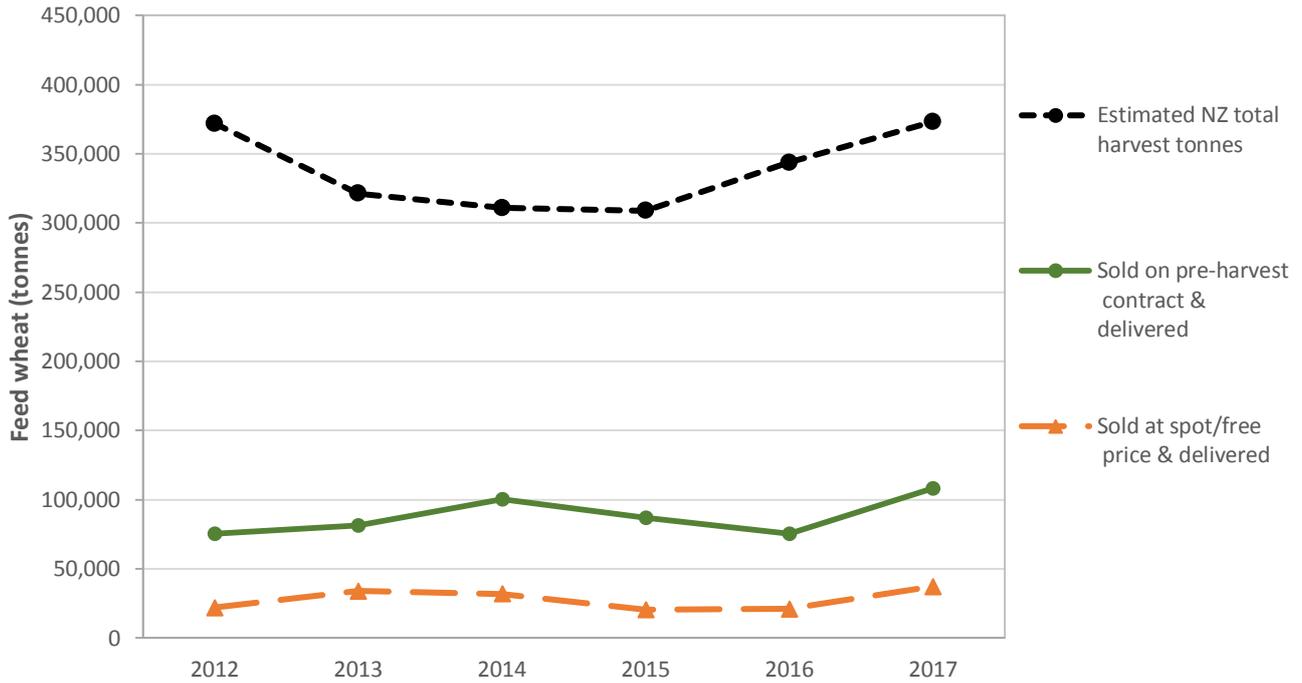


Figure 2a. NZ harvest tonnage and sales channels for Feed wheat (tonnes) as estimated on July 1 each year.

(Note: All categories relate to that season’s harvest, excluding carryover stock. “Sold at spot/free price and delivered” includes grain used on own farm. Historical data are sourced from previous AIMI July Reports.)

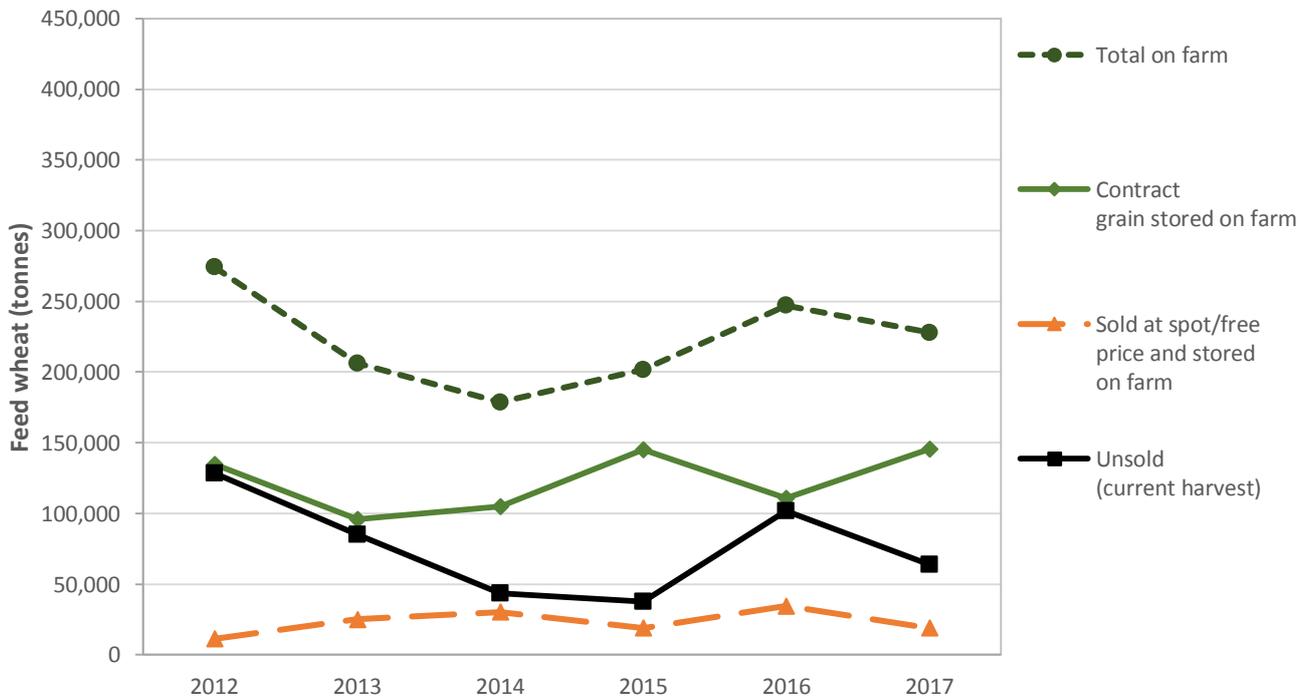


Figure 2b. NZ stocks on farm for Feed wheat (tonnes) as estimated on July 1 each year.

(Note: Carryover stock from the previous season is excluded. Historical data are sourced from previous AIMI July Reports.)

Feed Barley (Tonnes)

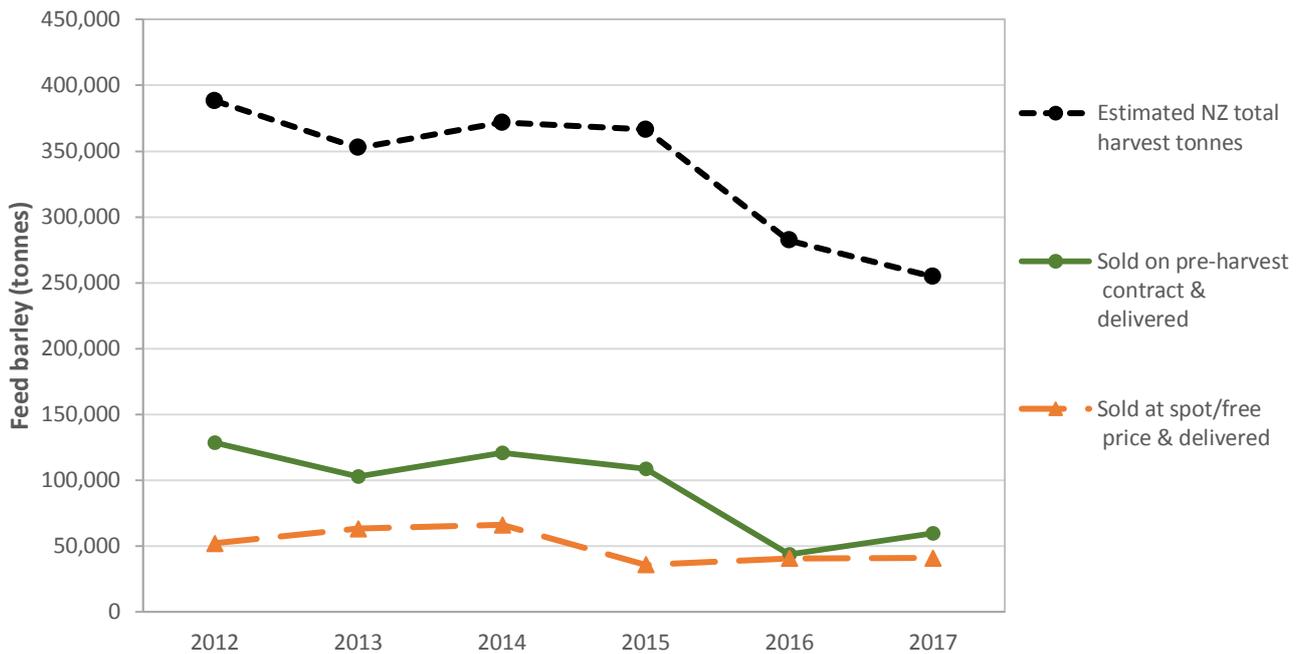


Figure 3a. NZ harvest tonnage and sales channels for Feed barley (tonnes) as estimated on July 1 each year.

(Note: All categories relate to that season’s harvest, excluding carryover stock. “Sold at spot/free price and delivered” includes grain used on own farm. Historical data are sourced from previous AIMI July Reports.)

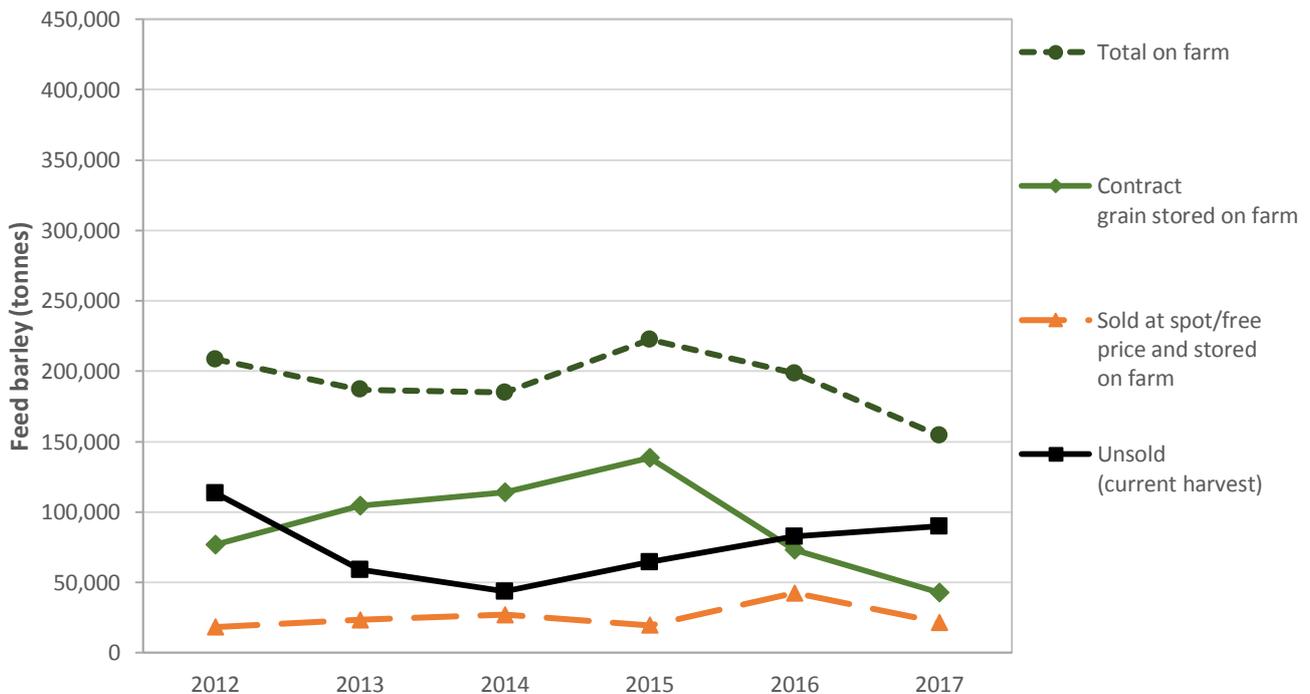


Figure 3b. NZ stocks on farm for Feed barley (tonnes) as estimated on July 1 each year.

(Note: Carryover stock from the previous season is excluded. Historical data are sourced from previous AIMI July Reports.)

Autumn/winter sowings and spring sowing intentions (combined) as at July 1 each year

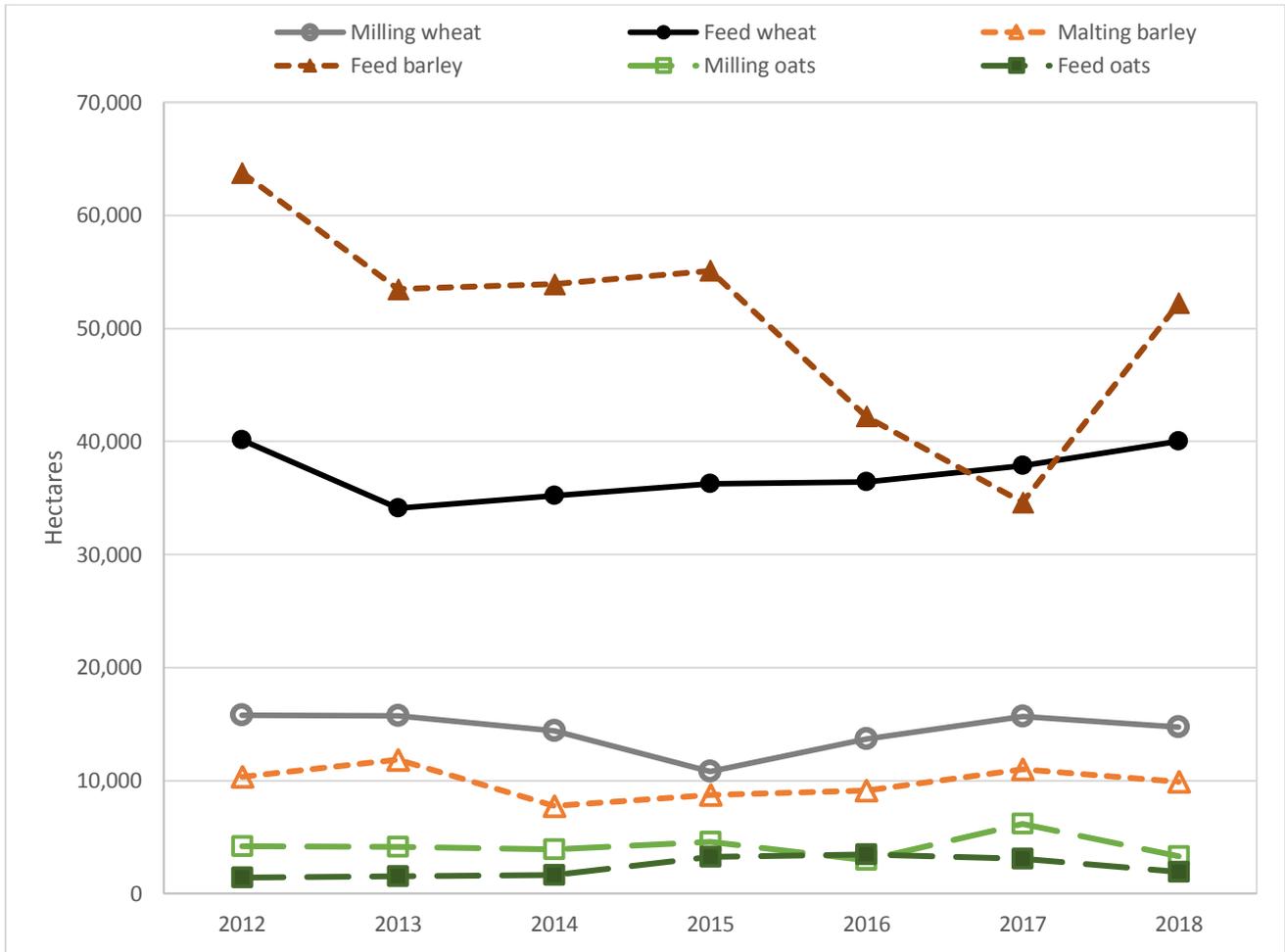


Figure 4. NZ harvest hectares for six cereal crops as estimated on July 1 each year, from 2012 to 2017 and predicted harvest hectares for 2018.

(Note: Figures for 2017 and 2018 (predicted) are from the current report and are a matched comparison (scaled up from a common set of growers), while other figures are from previous AIMI July reports.)

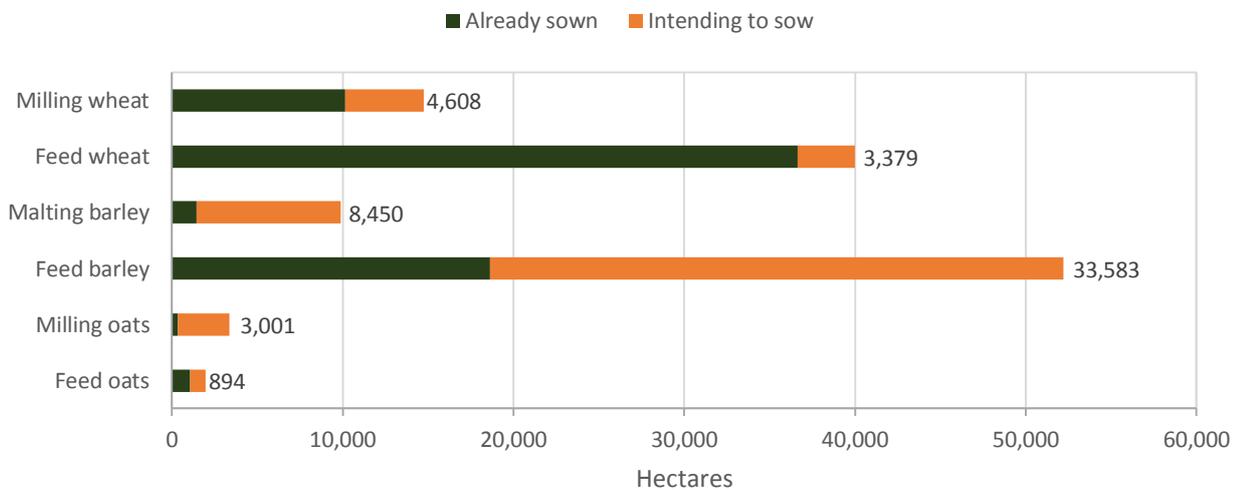


Figure 5. NZ autumn/winter 2017 sowings and spring 2017 sowing intentions (hectares) for six cereal crops as estimated on July 1, 2017.

(Note: Numbers at the end of each bar represent sowing intentions.)

Comparison of estimated NZ-wide yield (tonnes per hectare) between harvests

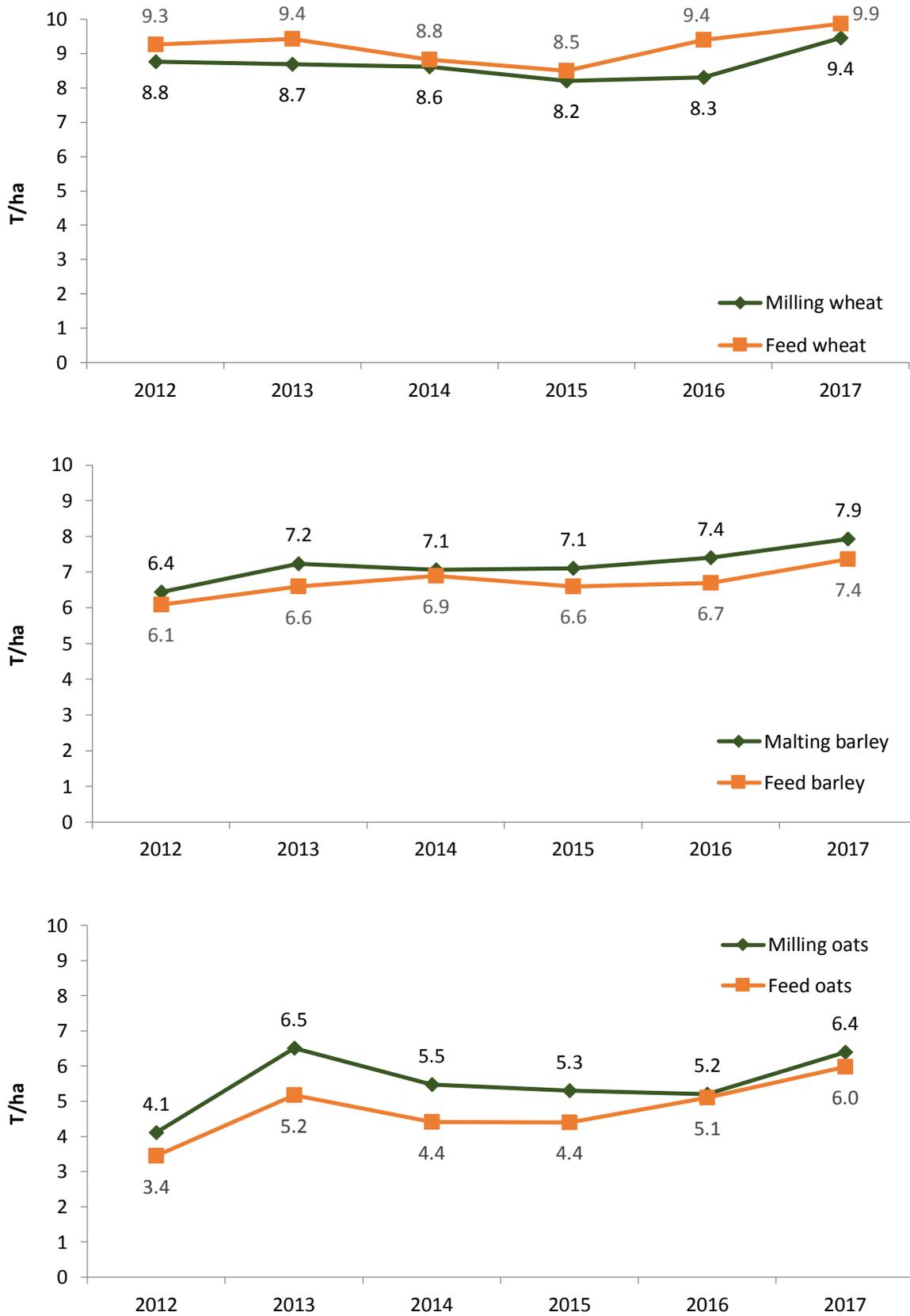


Figure 6. Comparison of NZ-wide yield (tonnes per ha) as estimated on July 1 each year, from 2012 to 2017 for six cereal crops.

(Note: Milling wheat contains biscuit and gristing varieties. Historical data are from AIMI reports for July 2012 to 2016.)

Table 1. Detailed estimated national figures for the 2017 harvest, plus sold and delivered tonnages, for six cereal crops as at July 1, 2017.

	Units	Milling wheat	Feed wheat	Malting barley	Feed barley	Milling oats	Feed oats
Number of farmers in the survey who harvested this crop in 2017		45	68	23	76	11	21
2016 harvest							
Estimated NZ total hectares, 2016 harvest	Ha	13,962	35,938	11,339	40,561	4,166	4,262
Estimated NZ total tonnes, 2016 harvest	Tonnes	117,516	341,784	88,192	276,008	23,599	23,046
2017 harvest							
Estimated NZ total hectares, 2017 harvest (final figures)	Ha	15,651	37,855	10,999	34,617	6,170	3,098
Estimated NZ total tonnes, 2017 harvest (final figures)	Tonnes	147,857	373,184	87,111	254,564	39,414	18,509
Sold under pre-harvest contract and delivered by July 1 2017	Tonnes	35,405	108,090	40,174	59,662	2,024	5,565
Pre-harvest contract grain stored on farm on July 1 2017	Tonnes	74,631	145,356	36,631	42,862	33,592	6,359
Sold at spot/free price and delivered by July 1 2017	Tonnes	4,622	35,782	1,356	40,467	0	366
Sold at spot/free price and stored on farm on July 1 2017	Tonnes	1,554	18,914	1,222	21,541	0	802
(For milling or malting only) Sold for feed by July 1 2017	Tonnes	6,665	-	4,319	-	0	-
(For feed only) Used on own farm (2017 harvest only) by July 1 2017	Tonnes	-	1,421	-	281	-	257
Unsold stocks on hand (2017 harvest only) on July 1 2017	Tonnes	24,981	63,621	3,409	89,750	3,798	5,160
Sales channels (2017 harvest)							
"Sold" under pre-harvest contract (total) by July 1 2017	Tonnes	110,036	253,446	76,805	102,525	35,616	11,924
Sold at spot/free price (total) by July 1 2017 (includes sold for feed and used on farm)	Tonnes	12,840	56,117	6,897	62,289	0	1,424
Delivery status of sold grain (2017 harvest)							
Sold and delivered (total) by July 1 2017 (includes sold for feed and used on farm)	Tonnes	46,691	145,294	45,850	100,411	2,024	6,188
"Sold" and stored on farm (total) on July 1 2017	Tonnes	76,185	164,270	37,853	64,403	33,592	7,161
Total sales (2017 harvest)							
Sold (grand total) by July 1 2017 (includes sold for feed and used on farm)	Tonnes	122,876	309,563	83,702	164,814	35,616	13,348
Unsold stocks on hand (2017 harvest only) on July 1 2017	Tonnes	24,981	63,621	3,409	89,750	3,798	5,160
Comparison of hectares and tonnages between last two harvests							
Estimated % change in hectares, 2016 to 2017 harvest	%	12%	5%	-3%	-15%	48%	-27%
Estimated % change in tonnes, 2016 to 2017 harvest	%	26%	9%	-1%	-8%	67%	-20%
Comparison of yields (t/ha) between last two harvests							
NZ-wide estimated yield, 2016 harvest	T/ha	8.4	9.5	7.8	6.8	5.7	5.4
NZ-wide estimated yield, 2017 harvest	T/ha	9.4	9.9	7.9	7.4	6.4	6.0
Comparison of Unsold grain as at July 1, 2017, with Unsold grain as at April 1, 2017							
Unsold (2017 harvest only) as at April 1 2017 (includes unharvested grain) (new matched estimate, based upon scaling up data from exact same 113 survey farms as above)	Tonnes	34,706	89,219	5,181	120,492	3,798	4,545
Unsold (2017 harvest only) on July 1 2017 (as above)	Tonnes	24,981	63,621	3,409	89,750	3,798	5,160
Estimated drop in tonnes of Unsold grain, 1 April 2017 to 1 July 2017	Tonnes	9,725	25,598	1,772	30,741	0	-615
Estimated % drop in tonnes of Unsold grain, 1 April 2017 to 1 July 2017	%	28%	29%	34%	26%	0%	-14%
Note: A negative drop means that the tonnage of unsold grain from the 2017 harvest has increased since the last survey date (1 April, 2017).							
Comparison of Unsold grain as at July 1, 2017, with Unsold grain at the same date last year (July 1, 2016)							
Unsold (2016 harvest only) as at July 1 2016 (from July 1 2016 AIMI report)	Tonnes	11,671	101,825	5,175	82,636	631	799
Unsold (2017 harvest only) on July 1 2017 (as above)	Tonnes	24,981	63,621	3,409	89,750	3,798	5,160
Change in tonnes of Unsold grain, 1 July 2016 to 1 July 2017	Tonnes	13,310	-38,205	-1,766	7,114	3,167	4,362

Table 2. Sowings and sowing intentions for six cereal crops as at July 1, 2017.

	Milling wheat (ha)	Feed wheat (ha)	Malting barley (ha)	Feed barley (ha)	Milling oats (ha)	Feed oats (ha)
Number of farmers in the survey who have sown this crop in the autumn or winter or intend to sow in the spring, as at 1 July 2017	40	68	22	80	9	16
Estimated NZ total hectares, 2016 harvest	13,962	35,938	11,339	40,561	4,166	4,262
Estimated NZ total hectares, 2017 harvest	15,651	37,855	10,999	34,617	6,170	3,098
Estimated NZ total autumn/winter 2017 sowings as at July 1, 2017 (hectares, for harvest in 2018)	10,126	36,630	1,443	18,637	336	1,053
Estimated NZ total spring 2017 sowing intentions at at July 1, 2017 (hectares, for harvest in 2018)	4,608	3,379	8,450	33,583	3,001	894
Predicted NZ total hectares, 2018 harvest (Autumn/winter sowings 2017 and Spring 2017 sowing intentions combined)	14,734	40,009	9,893	52,220	3,337	1,947
Comparison of hectares between 2016, 2017 and 2018 (predicted) harvests						
Estimated % change in NZ total harvest hectares, 2016 to 2017 harvest	12%	5%	-3%	-15%	48%	-27%
Estimated % change in NZ total harvest hectares, 2017 to 2018 harvest (predicted)	-6%	6%	-10%	51%	-46%	-37%
Estimated % change in NZ total harvest hectares over two seasons, 2016 to 2018 harvest (predicted)	6%	11%	-13%	29%	-20%	-54%
Comparison of Autumn/winter 2017 actual sowings (as at July 1, 2017) with autumn/winter sowings plus intended sowings as at April 1, 2017 (based upon matched data)						
Estimated NZ total autumn/winter 2017 sowings and sowing intentions as at April 1, 2017 (date of previous survey) (hectares, for harvest in 2018)	11,363	41,087	4,731	21,535	1,239	2,098
<i>Change</i> in autumn/winter 2017 actual sowings (as at July 1, 2017) compared to autumn/winter sowings and sowing intentions as at April 1, 2017 (ha)	-1,238	-4,457	-3,288	-2,898	-903	-1,045
<i>Percentage change</i> in autumn/winter 2017 actual sowings (as at July 1, 2017) compared to autumn/winter sowings and sowing intentions as at April 1, 2017	-11%	-11%	-70%	-13%	-73%	-50%
Note: The matched comparison in the last three rows was based upon scaling up data from the <i>exact same</i> survey farms for both survey dates.						

In Table 2, feed barley sowings/intentions, as at 1 July 2017, show a marked increase (51% increase) over this time last year, and a 29% increase over the same time two years ago, suggesting a resurgence of interest in growing this crop. Feed wheat sowings show a continuing slow increase, with an estimated 6% increase over the same time last year, and an estimated 11% increase over the same time two years ago. For the other four crops, sowings/intentions are down on the same time last year. As a total over all six cereal crops, sowings/intentions are 13% up on the same time last year, and 11% up on the same time two years ago. Autumn/winter actual sowings, as at 1 July 2017, were down 17% on autumn/winter sowings/intentions as at 1 April 2017, with some surveyed growers saying it had been too wet to sow.

This report is intended to provide accurate and adequate information relating to the subject matter contained in it. It has been prepared and made available to all persons and entities strictly on the basis that FAR, its researchers and authors are fully excluded from any liability for damages arising out of any reliance in part or in full upon any of the information for any purpose.

APPENDIX

Totals over 113 survey responses

In Table A.1, the yields per hectare on the survey farms were higher for the 2017 harvest than for the 2016 harvest for all six crops. Yields were up by 1.0 t/ha for milling wheat, up by 0.4 t/ha for feed wheat, up by 0.2 t/ha for malting barley, up by 0.6 t/ha for feed barley, up by 0.8 t/ha for milling oats and up by 0.6 t/ha for feed oats, from the 2016 to 2017 harvests.

Table A.1 Data totalled over all survey respondents							
	Units	Milling wheat	Feed wheat	Malting barley	Feed barley	Milling oats	Feed oats
Number of farmers in the survey who harvested this crop in 2017		45	68	23	76	11	21
2016 harvest							
Total hectares on survey farms, 2016 harvest	Ha	1,766	4,547	873	3,121	471	482
Total tonnes on survey farms, 2016 harvest	Tonnes	15,129	44,001	7,218	22,590	3,032	2,961
2017 harvest							
Total hectares on survey farms, 2017 harvest (final figures)	Ha	1,980	4,789	846	2,664	697	350
Total tonnes on survey farms, 2017 harvest (final figures)	Tonnes	19,035	48,044	7,130	20,835	5,064	2,378
Sold under pre-harvest contract and delivered by July 1 2017	Tonnes	4,558	13,916	3,288	4,883	260	715
Pre-harvest contract grain stored on farm on July 1 2017	Tonnes	9,608	18,713	2,998	3,508	4,316	817
Sold at spot/free price and delivered by July 1 2017	Tonnes	595	4,607	111	3,312	0	47
Sold at spot/free price and stored on farm on July 1 2017	Tonnes	200	2,435	100	1,763	0	103
(For milling or malting only) Sold for feed by July 1 2017	Tonnes	858	-	354	-	0	-
(For feed only) Used on own farm (2017 harvest only) by July 1 2017	Tonnes	-	183	-	23	-	33
Unsold stocks on hand (2017 harvest only) on July 1 2017	Tonnes	3,216	8,191	279	7,346	488	663
Comparison of yield (tonnes per ha) on survey farms between harvests							
Survey farms, 2016 harvest	T/ha	8.6	9.7	8.3	7.2	6.4	6.1
Survey farms, 2017 harvest	T/ha	9.6	10.0	8.4	7.8	7.3	6.8

In Table A.2, the data in Table A.1 are expressed as percentages.

Table A.2 Fate of 2017 crop, in percentages (by tonnes)							
	Units	Milling wheat	Feed wheat	Malting barley	Feed barley	Milling oats	Feed oats
Number of farmers in the survey who harvested this crop in 2017		45	68	23	76	11	21
2017 harvest							
% Sold under pre-harvest contract and delivered by July 1 2017	%	23.9	29.0	46.1	23.4	5.1	30.1
% Pre-harvest contract grain stored on farm on July 1 2017	%	50.5	39.0	42.1	16.8	85.2	34.4
% Sold at spot/free price and delivered by July 1 2017	%	3.1	9.6	1.6	15.9	0.0	2.0
% Sold at spot/free price and stored on farm on July 1 2017	%	1.1	5.1	1.4	8.5	0.0	4.3
(For milling or malting only) % Sold for feed by July 1 2017	%	4.5	-	5.0	-	0.0	-
(For feed only) % Used on own farm by July 1 2017	%	-	0.4	-	0.1	-	1.4
% Unsold stocks on hand (2017 harvest only) on July 1 2017	%	16.9	17.0	3.9	35.3	9.6	27.9
Sales channels (2017 harvest)							
% "Sold" under pre-harvest contract (total) by July 1 2017	%	74.4	67.9	88.2	40.3	90.4	64.4
% Sold at spot/free price (total) by July 1 2017 (includes sold for feed and used on farm)	%	8.7	15.0	7.9	24.5	0.0	7.7
Delivery status of sold grain (2017 harvest)							
% Sold and delivered (total) by July 1 2017 (includes sold for feed and used on farm)	%	31.6	38.9	52.6	39.4	5.1	33.4
% "Sold" and stored on farm (total) on July 1 2017	%	51.5	44.0	43.5	25.3	85.2	38.7
Total sales (2017 harvest)							
% Sold (of total crop) by July 1 2017 (includes sold for feed and used on farm)	%	83.1	83.0	96.1	64.7	90.4	72.1
% Unsold (of total crop) on July 1 2017	%	16.9	17.0	3.9	35.3	9.6	27.9

Table A.3 Autumn/winter sowings and spring sowing intentions (data totalled over all survey respondents)						
	Milling wheat	Feed wheat	Malting barley	Feed barley	Milling oats	Feed oats
	(ha)	(ha)	(ha)	(ha)	(ha)	(ha)
Number of farmers in the survey who have sown this crop in the autumn or winter or intend to sow in the spring, as at 1 July 2017	40	68	22	80	9	16
Number of farmers in the survey who sowed in Autumn/winter 2017	31	64	5	39	2	9
Number of farmers in the survey who intend to sow in Spring 2017, as at July 1 2017	21	17	20	71	8	7
Total hectares on survey farms, 2016 harvest	1,766	4,547	873	3,121	471	482
Total hectares on survey farms, 2017 harvest	1,980	4,789	846	2,664	697	350
Autumn/winter 2017 sowings on survey farms as at July 1 2017 (hectares, for harvest in 2018)	1,281	4,634	111	1,434	38	119
Spring 2017 sowing intentions on survey farms as at July 1 2017 (hectares, for harvest in 2018)	583	428	650	2,584	339	101
Total predicted hectares for 2018 harvest, as at July 1 2017	1,864	5,062	761	4,018	377	220
Comparison of Autumn/Winter actual sowings (as at July 1, 2017) with intended sowings (as at April 1, 2017)						
Autumn/winter 2017 sowings and intentions on these same survey farms as at April 1, 2017 (date of previous survey) (hectares, for harvest in 2018)	1,438	5,198	364	1,657	140	237
Change in autumn/winter 2017 sowings (as at July 1, 2017) compared to autumn/winter sowings and intentions as at April 1, 2017 (hectares)	-157	-564	-253	-223	-102	-118
Percentage change in autumn/winter 2017 sowings (as at July 1, 2017) compared to autumn/winter sowings and intentions as at April 1, 2017	-11%	-11%	-70%	-13%	-73%	-50%

For scaling up to NZ-wide totals, the most recent APS figures are the Final 2016 figures, as in Table A.4. On average, the yields on the survey farms were higher than in the APS figures.

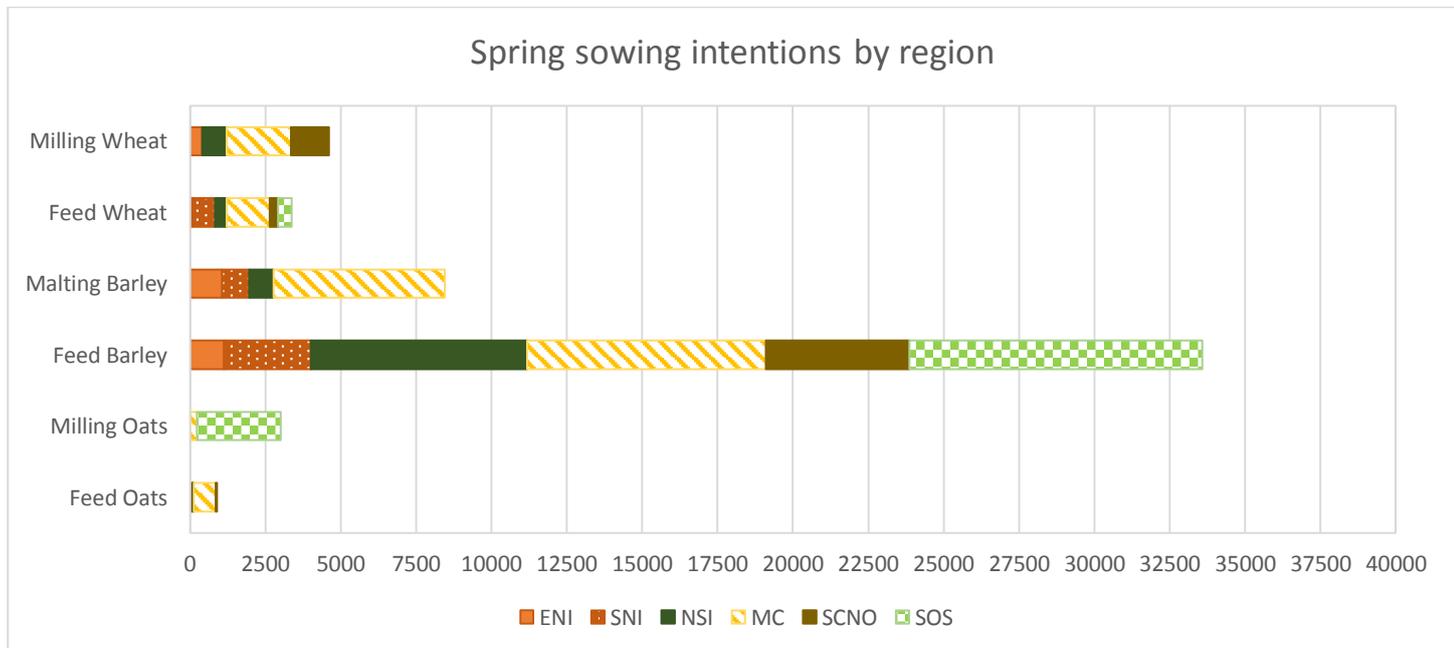
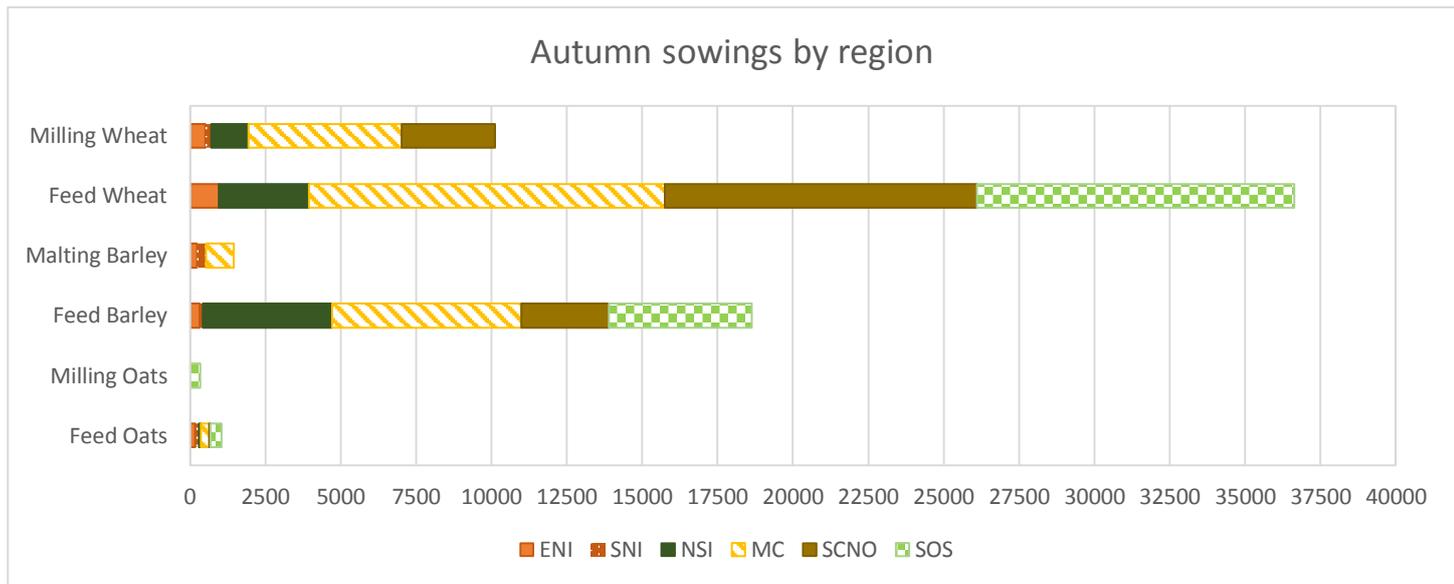
Table A.4 Scaling up from survey totals to NZ-wide totals using Final 2016 Agricultural Production Statistics (APS)				
	Units	Total wheat	Total barley	Total oats
Total hectares on survey farms, 2016 harvest	Ha	6,313	3,993	952
Total tonnes on survey farms, 2016 harvest	Tonnes	59,130	29,808	5,993
Final APS statistics for 2016 harvest, total hectares	Ha	49,900	51,900	8,428
Final APS statistics for 2016 harvest, total tonnes	Tonnes	459,300	364,200	46,645
Multiplier for scaling up from survey farms to APS statistics				
Hectares		7.904	12.996	8.852
Tonnes		7.768	12.218	7.783
Comparison of yields between survey and APS statistics				
Survey farms, 2016 harvest	T/ha	9.4	7.5	6.3
APS statistics, 2016 harvest	T/ha	9.2	7.0	5.5

Survey & Regional Details

Comments	July
Negative - price too low/market down	25
Positive - market improving	18
Sowing less or change in crop (oats, mill/malt)	11
Waiting on contracts /market	8
Milling/malting rejected	5
Wet harvest / sowing	17
Good harvest/sowing	6

Completed survey	130
Report Group	113*

*Must complete Oct 16, Apr 17 & Jul 17



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