SUMMARY - SURVEY OF CEREAL AREAS AND VOLUMES - OCTOBER 10, 2017

The objective of this AIMI survey of cereal growers was to determine, as at October 10, 2017:

- sales of the 2017 harvest of wheat, barley and oats since July 1, 2017
- levels of on-farm storage, both sold and unsold, of the 2017 harvest
- spring 2017 sowings and sowing intentions of wheat, barley and oats

Data from 113 survey farms who completed all of the last four cereal surveys (October 2016 and April, July and October 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 at the 10th October 2017 and there will have been changes since this time. The maize survey is currently underway and details will be released later this month.

Key Points at 10 October 2017 (figures have been rounded to nearest 100)**:**

- Unsold stocks of cereal grain, summed over all six crops, are estimated to have reduced by 53% between 1 July 2017 and 10 October 2017.
- When compared to the same time last year, unsold stocks of feed barley, milling wheat, milling oats and feed oats are higher but unsold stocks of feed wheat and malting barley are lower.
- Total on-farm storage, including both sold and unsold grain, summed over all six crops, is similar (up 3%) to the same time last year.
- The total area sown in cereals is estimated to be up 19% (or 20,500 ha) on last season. This is mainly due to an increase in the area sown in feed barley, which is returning to historical levels. At the date of the survey (10 October 2017), 81% of sowings and intended sowings had been completed. Wet weather has delayed sowing in many regions, with later crops sown in less than ideal conditions.

The tonnages of unsold feed grain were estimated at 25,500 t of feed wheat and 45,200 t of feed barley, as at 10 October 2017; in addition, there was an estimated 11,400 t of unsold milling wheat. For feed barley, the 2018 harvest hectares are predicted to be 59% 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 19% up on the 2017 harvest hectares (from 108,200 hectares to 128,700 hectares).

Milling wheat: The estimated tonnage of unsold grain is 11,400 tonnes, which is up on the same time last year. The estimated tonnage of "sold" grain that is still stored on farm is 41,700 tonnes, which is also up on the tonnage at the same time last year. Overall, on-farm storage is 20% up on the same time last year. Almost all milling wheat crops (98%) had been sown by October 10, and the area sown (including yet to be sown) is estimated to be down 5% on last season.

Feed wheat: The estimated tonnage of unsold grain is 25,500 tonnes, which is less than at the same time last year. The estimated tonnage of "sold" grain that is still stored on farm is 110,200 tonnes, which is down on the tonnage at the same time last year. Overall, on-farm storage is down 10% on the same time

last year. Almost all feed wheat crops (98%) had been sown by October 10, and the area sown (including yet to be sown) is estimated to be up 4% on last season.

Feed barley: The estimated tonnage of unsold grain is 45,200 tonnes, which is higher than at the same time last year. The estimated tonnage of "sold" grain that is still stored on farm is 56,400 tonnes, which is lower than the tonnage at the same time last year. Overall, on-farm storage is similar (down 3%) to the same time last year. Feed barley crops were only 65% sown by October 10, and the area sown (including yet to be sown) is estimated to be 59% up on last season, returning to historical levels.

Malting barley: The estimated tonnage of unsold grain is 600 tonnes, which is lower than at the same time last year. The estimated tonnage of "sold" grain that is still stored on farm is 16,400 tonnes, which is slightly higher than the tonnage at the same time last year. Overall, on-farm storage is down 7% on the same time last year. Malting barley crops were 77% sown by October 10, and the area sown (including yet to be sown) is estimated to be 13% up on last season.

Milling oats: The estimated tonnage of unsold grain is 3,100 tonnes, which is up on the same time last year. The estimated tonnage of "sold" grain that is still stored on farm is 26,700 tonnes, which is considerably up on the same time last year. Overall, on-farm storage is more than double (up 124%) what it was at the same time last year. Milling oats crops were 82% sown by October 10, and the area sown (including yet to be sown) is estimated to be 9% down on last season.

Feed oats: The estimated tonnage of unsold grain is 3,000 tonnes, which is higher than at the same time last year. The estimated tonnage of "sold" grain that is still stored on farm is 6,900 tonnes, which is also higher than at the same time last year. Overall, on-farm storage is 52% higher than at the same time last year. Feed oats crops were 100% sown by October 10, and the area sown is estimated to be 48% down on last season.

Overall: As a total over all six crops, estimated unsold tonnage of wheat, barley and oats (88,900 t in total) was up by 11% compared to the same time last year, while estimated tonnage "sold" but still stored on farm (258,300 t in total) was almost identical to the same time last year. This meant that the total tonnage on farm on October 10, 2017 (347,200 t in total) was estimated to be up by 3% on the amount on October 10, 2016. The total on-farm storage was made up of 135,700 tonnes of feed wheat, 101,600 tonnes of feed barley, 53,100 tonnes of milling wheat, 17,000 tonnes of malting barley, 29,800 tonnes of milling oats and 9,900 tonnes of feed oats.

The total area sown plus intended to be sown in wheat, barley or oats, as at 10 October 2017, was estimated to be up 20,500 ha, or 19%, on the area harvested in 2017. This increase was primarily due to a 20,700 ha (59%) increase in sowings and intentions for feed barley which are returning to historical levels. There were also small increases for feed wheat and malting barley, and decreases in sowings of milling wheat, milling oats and feed oats.

The percentage of hectares that had been "forward sold" was estimated to be 90% for malting barley, 78% for milling oats and 43% for milling wheat. For the feed crops, the percentages that had been forward sold were 46% of feed wheat, 43% of feed barley and 26% of feed oats hectares.

The results presented in this report show a reversal of the trend described in last year's October 10 (2016) AIMI report. As a comparison over the last two years, the total area sown plus intended to be sown in wheat, barley or oats, as at 10 October 2017, was estimated to be 17% up on the area harvested in 2016. This increase was primarily driven by a 36% increase in sowings/intentions for feed barley over the last two years, and smaller increases for feed wheat and malting barley.

Estimated National Figures as at October each year – Cereals

Table 1. Detailed estimated national figures for the 2017 harvest, plus sold and delivered tonnages, for six cereal crops as at October 10, 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	69	23	76	11	22
2016 harvest							
Estimated NZ total hectares, 2016 harvest	Ha	14,244	35,656	11,224	40,676	3,998	4,430
Estimated NZ total tonnes, 2016 harvest	Tonnes	121,421	337,879	87,815	276,385	22,297	24,348
2017 harvest							
Estimated NZ total hectares, 2017 harvest	Ha	15,624	37,605	10,887	34,780	5,921	3,398
Estimated NZ total tonnes, 2017 harvest	Tonnes	143,680	375,963	86,739	257,065	37,240	19,142
Sold under pre-harvest contract and delivered by Oct 10 2017	Tonnes	58,246	179,011	61,695	77,717	7,391	8,052
Pre-harvest contract grain stored on farm on Oct 10 2017	Tonnes	37,842	80,459	16,363	24,734	26,702	5,236
Sold at spot/free price and delivered by Oct 10 2017	Tonnes	7,933	58,698	2,080	77,432	0	919
Sold at spot/free price and stored on farm on Oct 10 2017	Tonnes	3,871	29,763	0	31,693	0	1,618
(For milling or malting only) Sold for feed by Oct 10 2017	Tonnes	24,398	-	5,968	-	0	-
(For feed only) Used on own farm by Oct 10 2017	Tonnes	-	2,552	-	280	-	294
Unsold stocks on hand (2017 harvest only) on Oct 10 2017	Tonnes	11,390	25,478	633	45,209	3,147	3,022
Sales channels (2017 harvest)							
Sold on pre-harvest contract (total) by Oct 10 2017	Tonnes	96,088	259,471	78,058	102,451	34,092	13,288
Sold at spot/free price (total) by Oct 10 2017	Tonnes	11,804	88,461	2,080	109,124	0	2,537
On farm storage (2017 harvest)							
Sold and delivered (total) by Oct 10 2017	Tonnes	66,179	237,710	63,775	155,149	7,391	8,972
Sold and stored on farm (total) on Oct 10 2017	Tonnes	41,713	110,222	16,363	56,427	26,702	6,854
Total sales (2017 harvest)							
Sold (grand total) by Oct 10 2017 (includes sold for feed and used on farm)	Tonnes	132,290	350,484	86,106	211,855	34,092	16,119
Unsold stocks on hand (2017 harvest only) on Oct 10 2017	Tonnes	11,390	25,478	633	45,209	3,147	3,022
Comparison of hectares and tonnes between last two harvests							
Estimated % change in hectares, 2016 to 2017 harvest	%	10	5	-3	-14	48	-23
Estimated % change in tonnes, 2016 to 2017 harvest	%	18	11	-1	-7	67	-21
Comparison of yields (t/ha) between last two harvests							
NZ-wide estimated yield, 2016 harvest	T/ha	8.5	9.5	7.8	6.8	5.6	5.5
NZ-wide estimated yield, 2017 harvest	T/ha	9.2	10.0	8.0	7.4	6.3	5.6

Table 1 (continued).

	Units	Milling wheat	Feed wheat	Malting barley	Feed barley	Milling oats	Feed oats
Comparison of on-farm storage between July 1 2017 and Oct 10 2017 (based upon matched data)							
Sold and stored on farm (total) on July 1 2017 (2017 harvest)	Tonnes	71,729	162,482	37,691	67,109	31,739	8,420
Sold and stored on farm (total) on Oct 10 2017 (2017 harvest)	Tonnes	41,713	110,222	16,363	56,427	26,702	6,854
Unsold stocks on hand (from 2017 harvest) on July 1 2017	Tonnes	24,651	62,780	3,394	89,367	3,589	4,876
Unsold stocks on hand (from 2017 harvest) on Oct 10 2017 (as above)	Tonnes	11,390	25,478	633	45,209	3,147	3,022
% decrease in total grain stored on-farm from July 2017 to Oct 2017	%	45	40	59	35	16	26
Comparison of on-farm storage between last October and this October (based upon matched data)							
Sold and stored on farm (total) on Oct 10 2016 (2016 harvest)	Tonnes	38,547	113,158	15,694	72,024	12,391	5,361
Sold and stored on farm (total) on Oct 10 2017 (2017 harvest)	Tonnes	41,713	110,222	16,363	56,427	26,702	6,854
Unsold stocks on hand (from 2016 harvest) on Oct 10 2016	Tonnes	5,565	36,953	2,518	33,043	912	1,140
Unsold stocks on hand (from 2017 harvest) on Oct 10 2017 (as above)	Tonnes	11,390	25,478	633	45,209	3,147	3,022
% increase in total grain stored on-farm from Oct 2016 to Oct 2017	%	20	-10	-7	-3	124	52
Increase in total grain stored on-farm from Oct 2016 to Oct 2017 (in TONNES)	Tonnes	8,991	-14,410	-1,217	-3,431	16,546	3,375
Note: The matched comparisons in the last two sections were based upon scaling up data from the exact same survey farms for the last four AIMI surveys *(not accounting for any carry-over from previous years).*							

In Table 1, the tonnages of the 2017 harvest of six grain crops still stored on farm have reduced by between 16% and 59% in the period between the AIMI surveys dated July 1, 2017 and October 10, 2017. When totalled over all six crops, the total tonnage of 2017 harvest grain still on farms has reduced by 39% during this period (July 1 to October 10, 2017).

When the on-farm storage on October 10, 2017 is compared to that at the same time last year (October 10, 2016), the total tonnage of grain on farms from the most recent harvest has increased by 3% (when summed over all six crops). This corresponds to virtually no change in the tonnage of grain "sold" and stored on farm, and an 11% increase in unsold stocks on hand, as compared to a year ago. The biggest changes in total on-farm storage were: milling oats up 16,500 tonnes, feed wheat down 14,400 tonnes and milling wheat up 9,000 tonnes as compared to the same time last year.

Table 2. Sowings and sowing intentions for six cereal crops as at October 10, 2017.

		Milling wheat	Feed wheat	Malting barley	Feed barley	Milling oats	Feed oats
	Units	(ha)	(ha)	(ha)	(ha)	(ha)	(ha)
Number of farmers in survey who have sown or intend to sow this crop as at Oct 10 2017		42	69	28	81	13	15
Estimated NZ total hectares, 2016 harvest	Ha	14,244	35,656	11,224	40,676	3,998	4,430
Estimated NZ total hectares, 2017 harvest	Ha	15,624	37,605	10,887	34,780	5,921	3,398
Sowings and intentions for the current season's crop (2017/18)							
Estimated NZ total autumn/winter 2017 sowings (hectares; for harvest in 2018)	Ha	10,304	35,953	2,045	18,634	833	687
Estimated NZ total spring 2017 sowings already sown by Oct 10 2017 (hectares; for harvest in 2018)	Ha	4,204	2,343	7,397	17,328	3,593	1,066
Estimated NZ total spring 2017 sowings still to sow (intentions) as at Oct 10 2017 (hectares; for harvest in 2018)	Ha	360	650	2,878	19,470	968	0
Estimated NZ total spring 2017 sowings plus intentions as at Oct 10 2017 (hectares; for harvest in 2018)	Ha	4,565	2,992	10,275	36,799	4,562	1,066
Predicted NZ total hectares, 2018 harvest (Autumn/winter 2017 sowings and Spring 2017 sowings & intentions, all combined)	Ha	14,868	38,946	12,320	55,433	5,394	1,753
"Forward sales" of 2017/18 crop							
Predicted NZ total hectares that are "forward sold" (2018 harvest)	Ha	6,427	18,034	11,038	24,045	4,185	449
Estimated percentage of NZ total hectares that are "forward sold" (2018 harvest), as at Oct 10 2017	%	43	46	90	43	78	26
Comparison of sowings/intentions over the 2015/16, 2016/17 and 2017/18 seasons (NZ totals) (based upon matched data)							
Estimated % change in NZ total sowings, 2016 to 2017 harvests	%	10	5	-3	-14	48	-23
Estimated % change in NZ total sowings, 2017 to 2018 (predicted) harvests	%	-5	4	13	59	-9	-48
Estimated % change in NZ total sowings, 2016 to 2018 (predicted) harvests (TOTAL over TWO seasons)	%	4	9	10	36	35	-60
Estimated change in NZ total sowings, 2017 to 2018 (predicted) harvests (HECTARES)	Ha	-756	1,340	1,433	20,652	-527	-1,645
Comparison of spring sowing intentions as at July 1 2017 with spring sowings plus intentions as at Oct 10 2017 (based upon matched data)							
Estimated NZ total spring 2017 sowing intentions as at July 1 2017 (hectares; for harvest in 2018)	Ha	4,408	3,190	8,673	33,422	3,050	1,113
Estimated NZ total spring 2017 sowings plus intentions as at Oct 10 2017 (hectares, for harvest in 2018) (as above)	Ha	4,565	2,992	10,275	36,799	4,562	1,066
Change in estimated NZ total spring 2017 sowings/intentions between July 1 2017 and Oct 10 2017 (hectares; for harvest in 2018)	Ha	157	-198	1,602	3,377	1,512	-47
Note: The matched comparisons in the last two sections were based upon scaling up data from the exact same survey farms for the last four AIMI surveys.							

In Table 2, sowings plus sowing intentions for feed barley (for harvest in 2018) are an estimated 59% up on the area harvested in 2017, returning to historical levels, while malting barley is 13% up and feed oats is 48% down. Milling wheat is 5% down, feed wheat is 4% up and milling oats is 9% down. As a sum over the six cereal crops, the estimated change between the area harvested in 2017 and the sowings plus sowing intentions for the current season (for harvest in 2018) is an increase of 20,500 hectares. Wet weather has delayed sowing in many regions, with later crops sown in less than ideal conditions.

At the bottom of Table 2 is the estimated change between the spring sowing intentions on July 1, 2017 and the actual sowings plus updated intentions on October 10, 2017. The largest changes are increases of about 3,400 hectares of feed barley, 1,600 hectares of malting barley and 1,500 hectares of milling oats. As a sum over the six cereal crops, the estimated change between the spring sowing intentions on July 1, 2017 and the actual sowings plus updated intentions on October 10, 2017 is an increase of 6,400 hectares (or 12%).

Milling wheat (Tonnes)

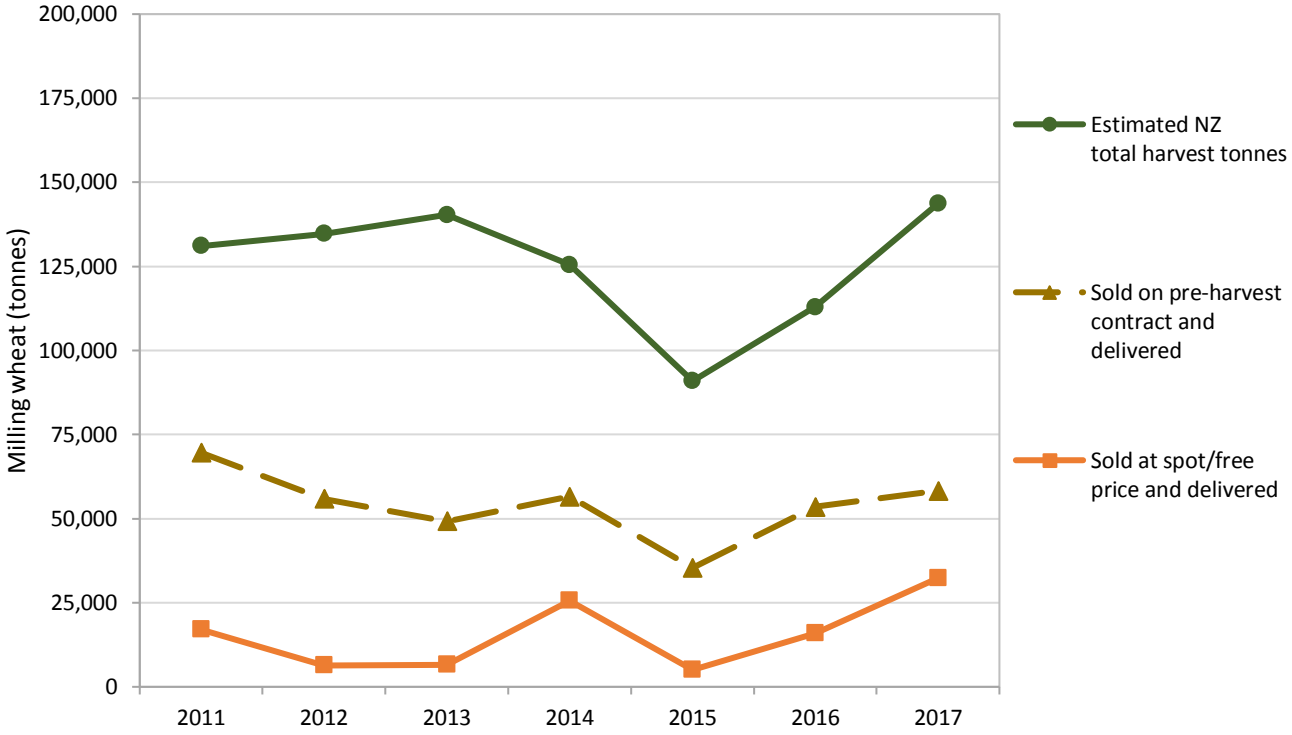

Figure 1a. NZ harvest tonnage and sales channels for Milling wheat (tonnes) as estimated in October each year. (Note: Both "sold and delivered" categories relate to the crop harvested that year, excluding carryover stock. "Sold at spot/free price and delivered" includes grain sold for feed. Historical data are sourced from previous AIMI October Reports.)

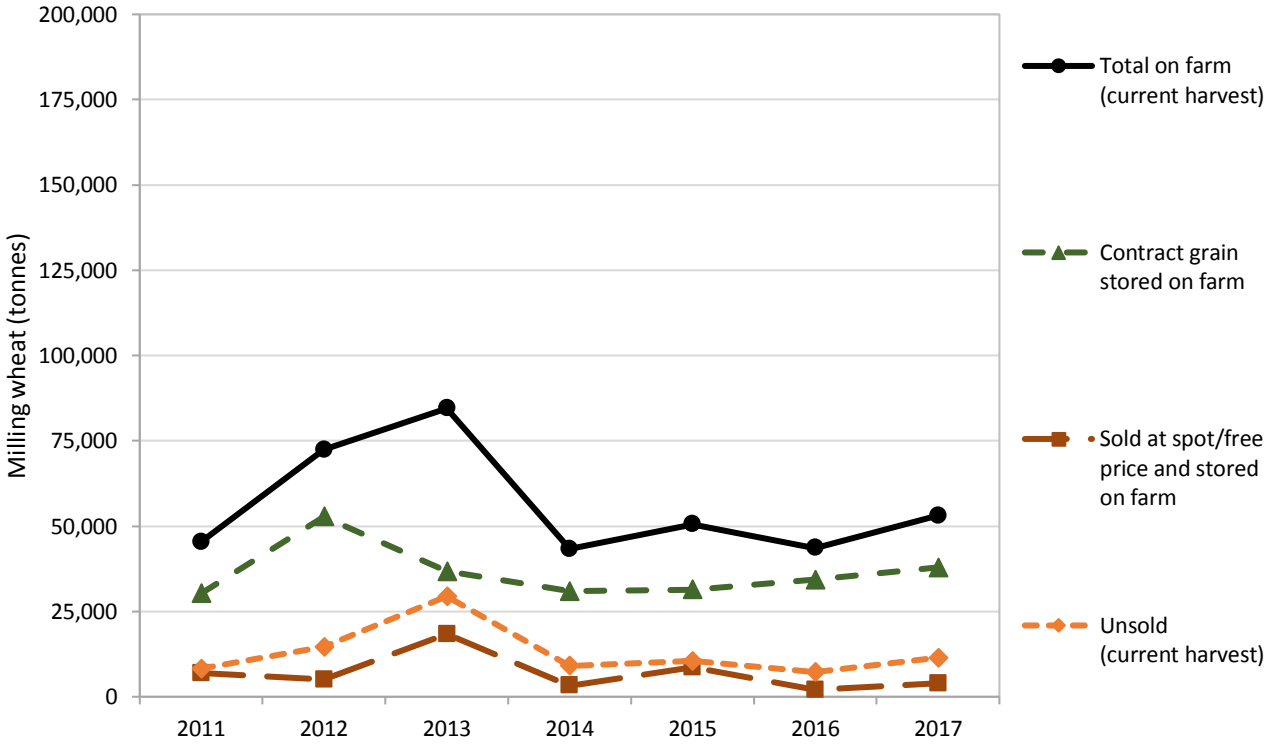

Figure 1b. NZ stocks on farm for Milling wheat (tonnes) as estimated in October each year. (Note: Historical data are sourced from previous AIMI October Reports.)

Feed Wheat (Tonnes)

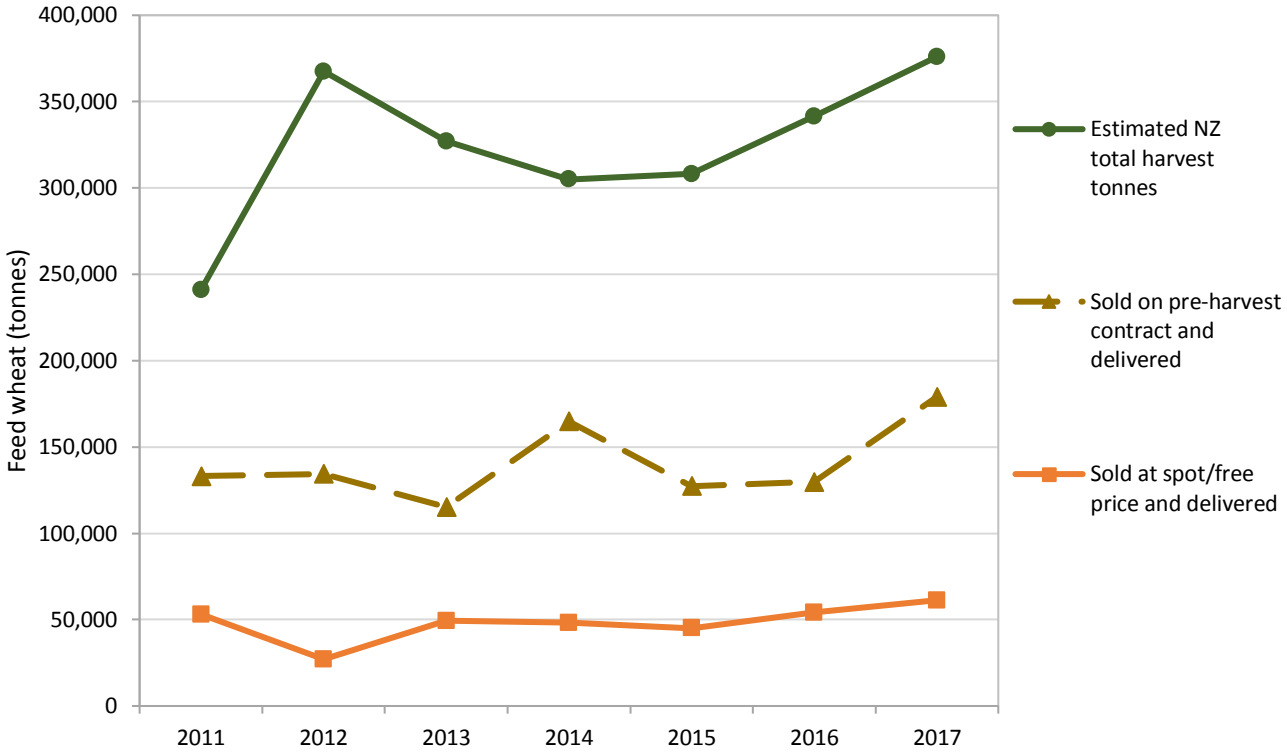

Figure 2a. NZ harvest tonnage and sales channels for Feed wheat (tonnes) as estimated in October each year. (Note: Both "sold and delivered" categories relate to the crop harvested that year, excluding carryover stock. "Sold at spot/free price and delivered" includes grain used on own farm. Historical data are sourced from previous AIMI October Reports.)

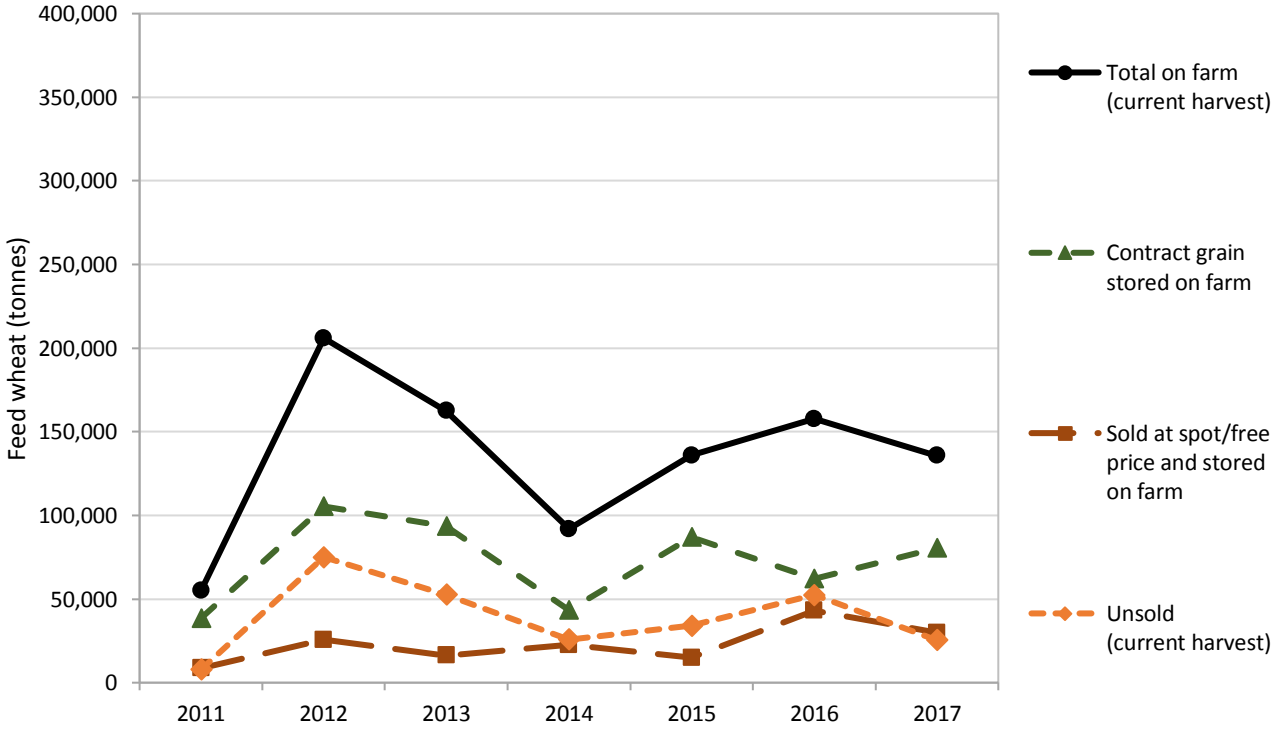

Figure 2b. NZ stocks on farm for Feed wheat (tonnes) as estimated in October each year. (Note: Historical data are sourced from previous AIMI October Reports.)

Feed Barley (Tonnes)

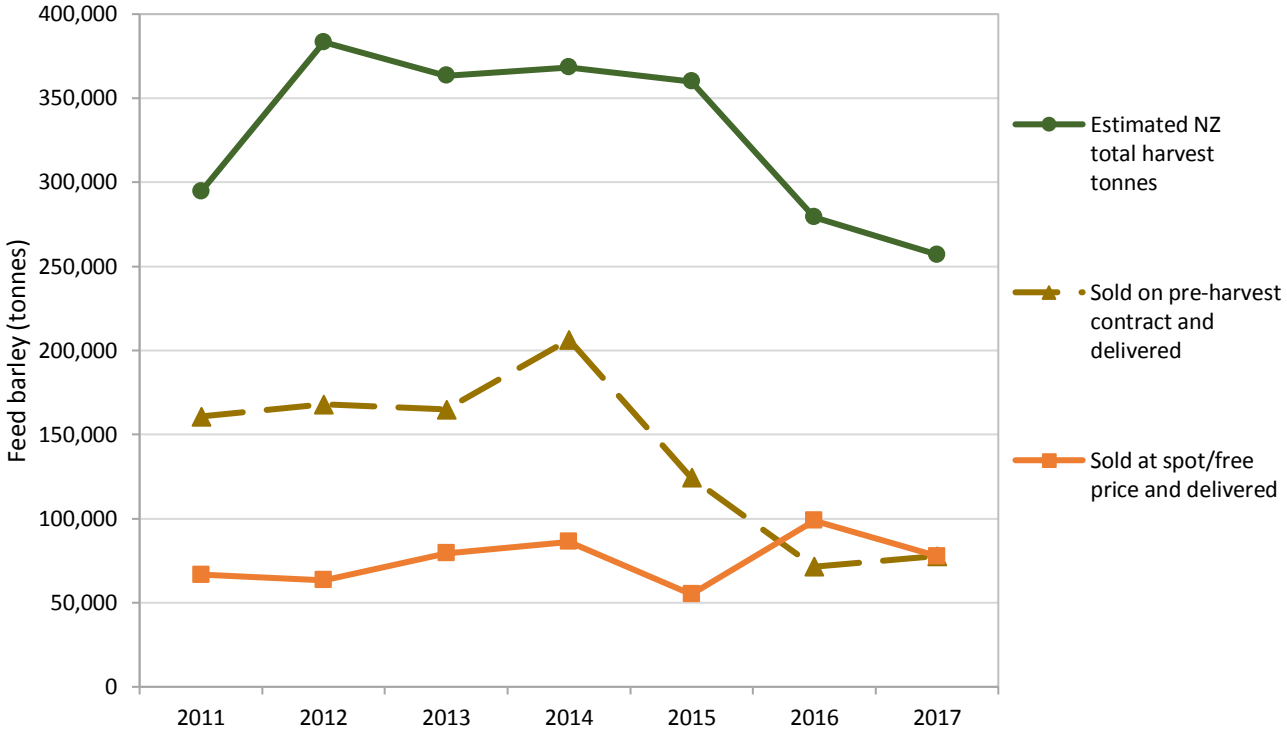

Figure 3a. NZ harvest tonnage and sales channels for Feed barley (tonnes) as estimated in October each year. (Note: Both "sold and delivered" categories relate to the crop harvested that year, excluding carryover stock. "Sold at spot/free price and delivered" includes grain used on own farm. Historical data are sourced from previous AIMI October Reports.)

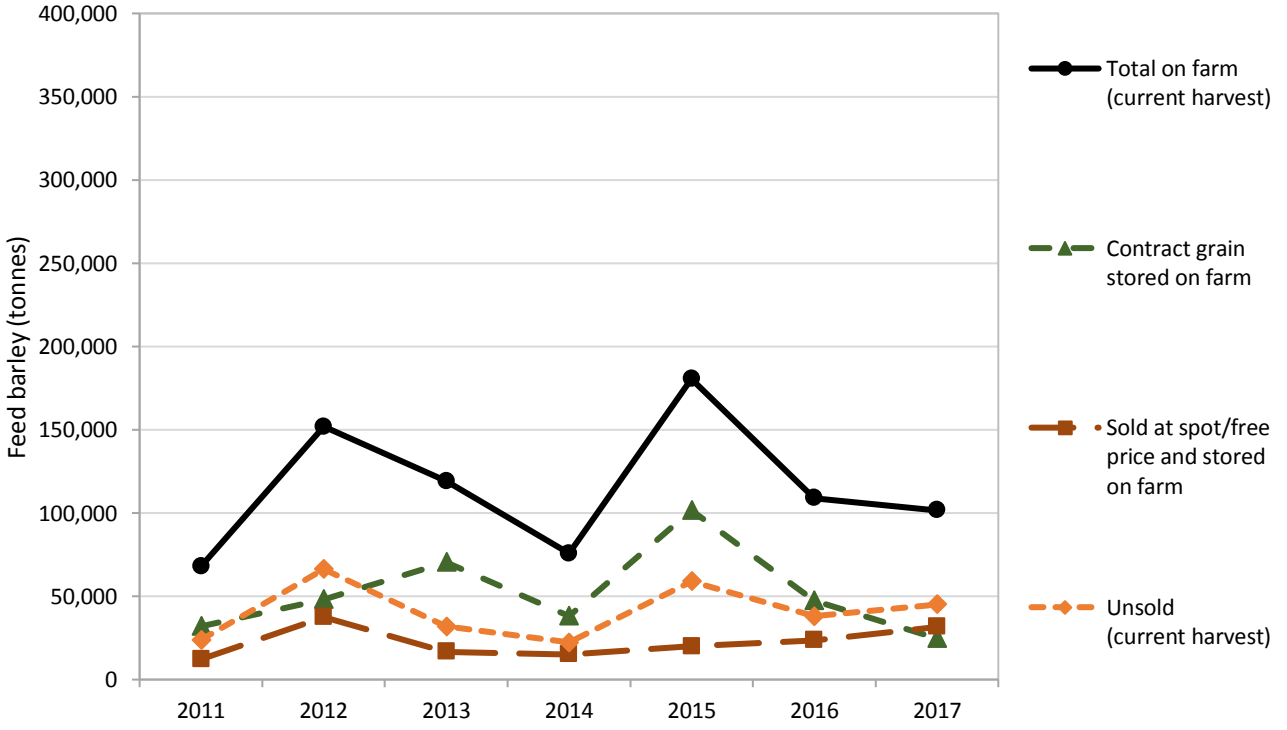

Figure 3b. NZ stocks on farm for Feed barley (tonnes) as estimated in October each year.
(Note: Historical data are sourced from previous AIMI October Reports.)

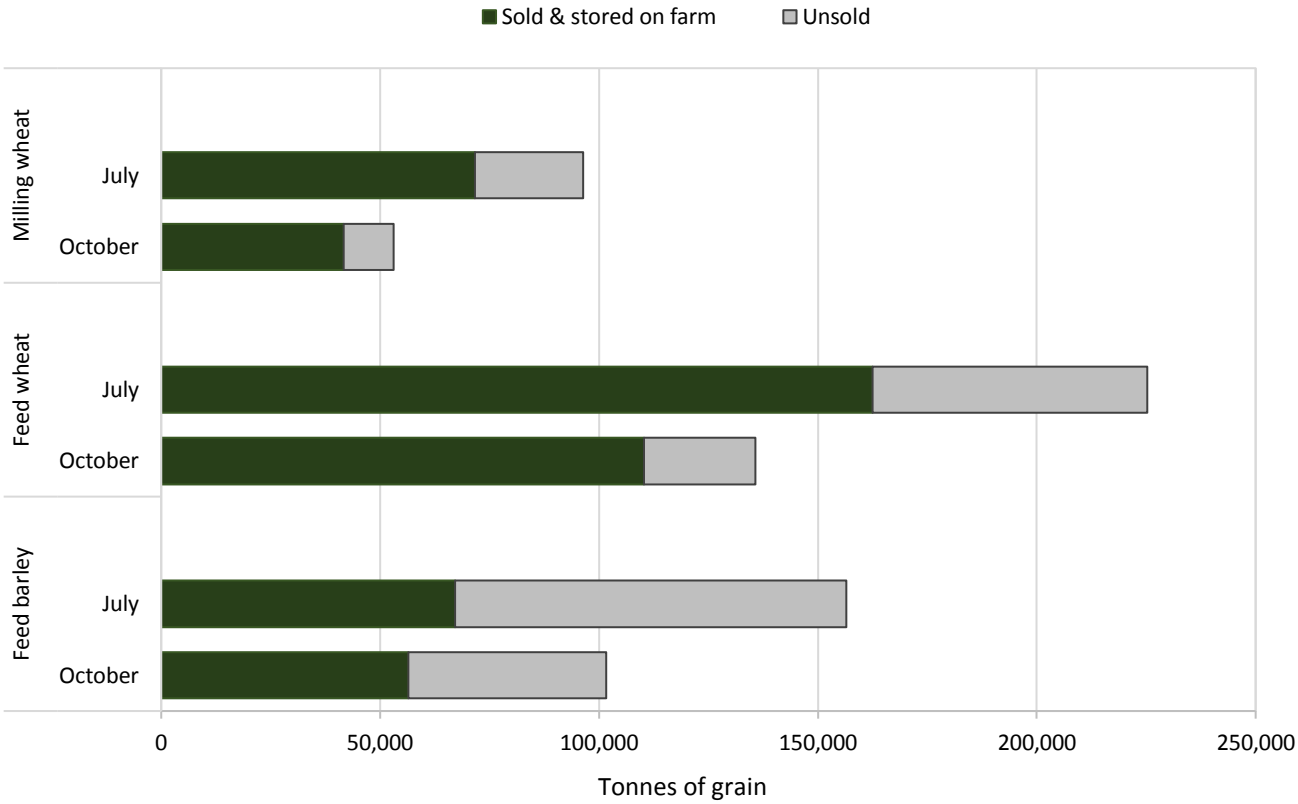

Figure 4. Changes in NZ stocks on farm for milling wheat, feed wheat and feed barley between July 1 and October 10, 2017.

All estimates are based upon scaling up from the current survey sample, which consists of only those growers who responded to all of the last four AIMI surveys; these estimates therefore provide more precise, matched comparisons.

Harvest hectares for 2011 to 2017 and predicted hectares for harvest in 2018 as estimated in October each year

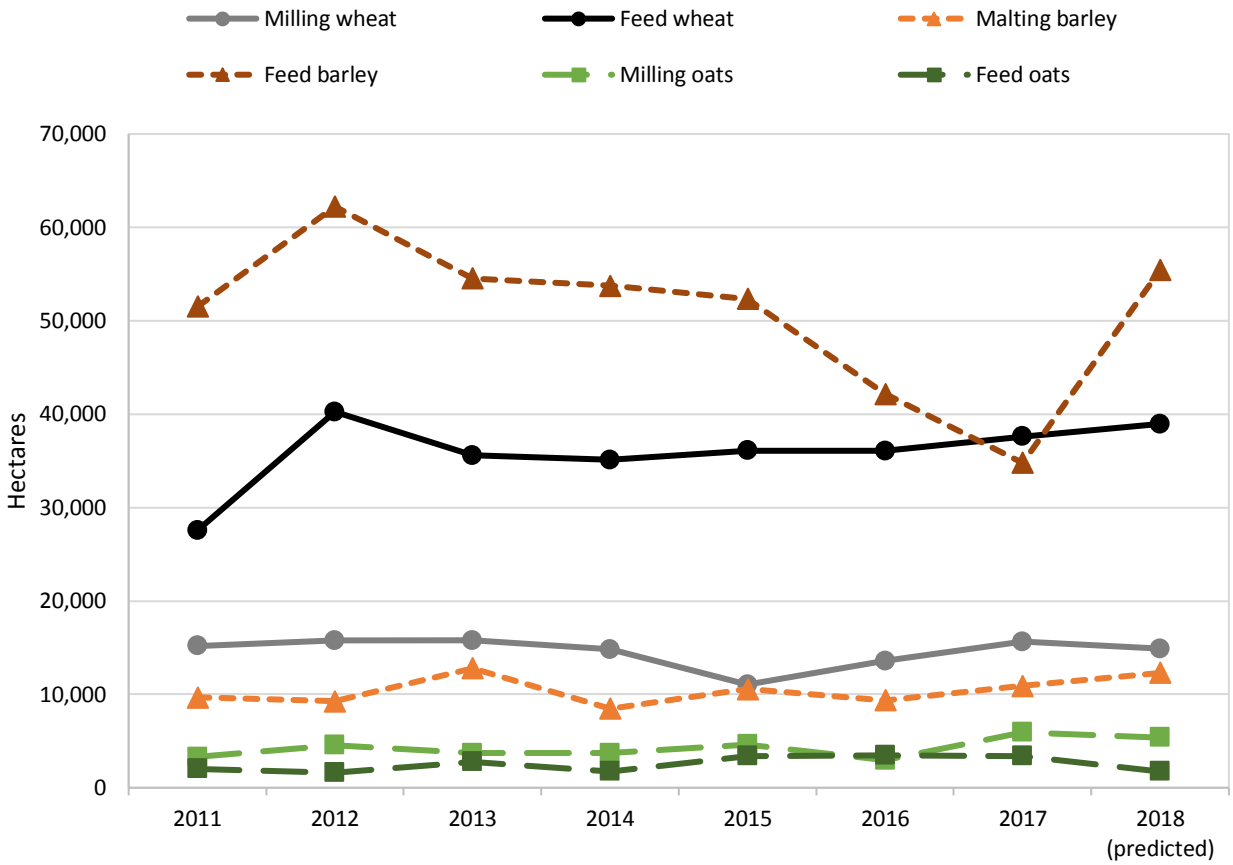

Figure 5. NZ harvest hectares for six cereal crops as estimated in October each year, from 2011 to 2017, with predicted hectares for harvest in 2018.
(Note: Figures for 2017 and 2018 (predicted) are from the current report, while other figures are from previous AIMI October reports.)

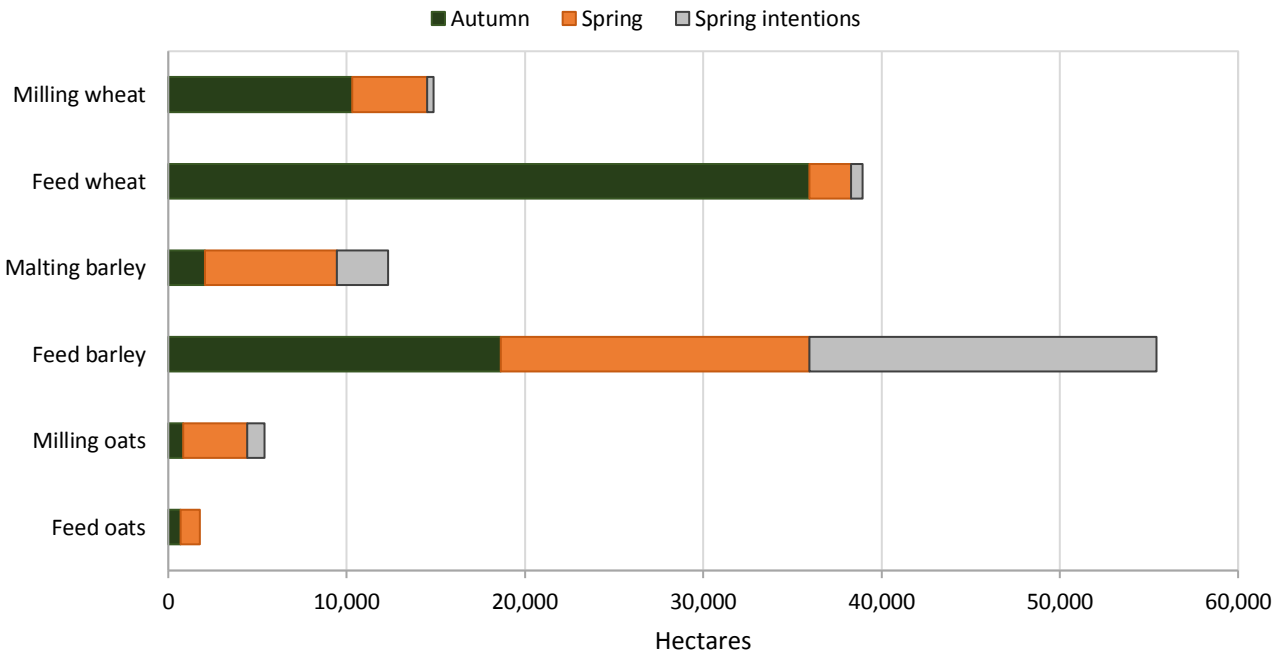

Figure 6. Estimated hectares sown in autumn and spring 2017, plus spring hectares yet to sow (spring intentions) for harvest in 2018, based on data collected on October 10, 2017.

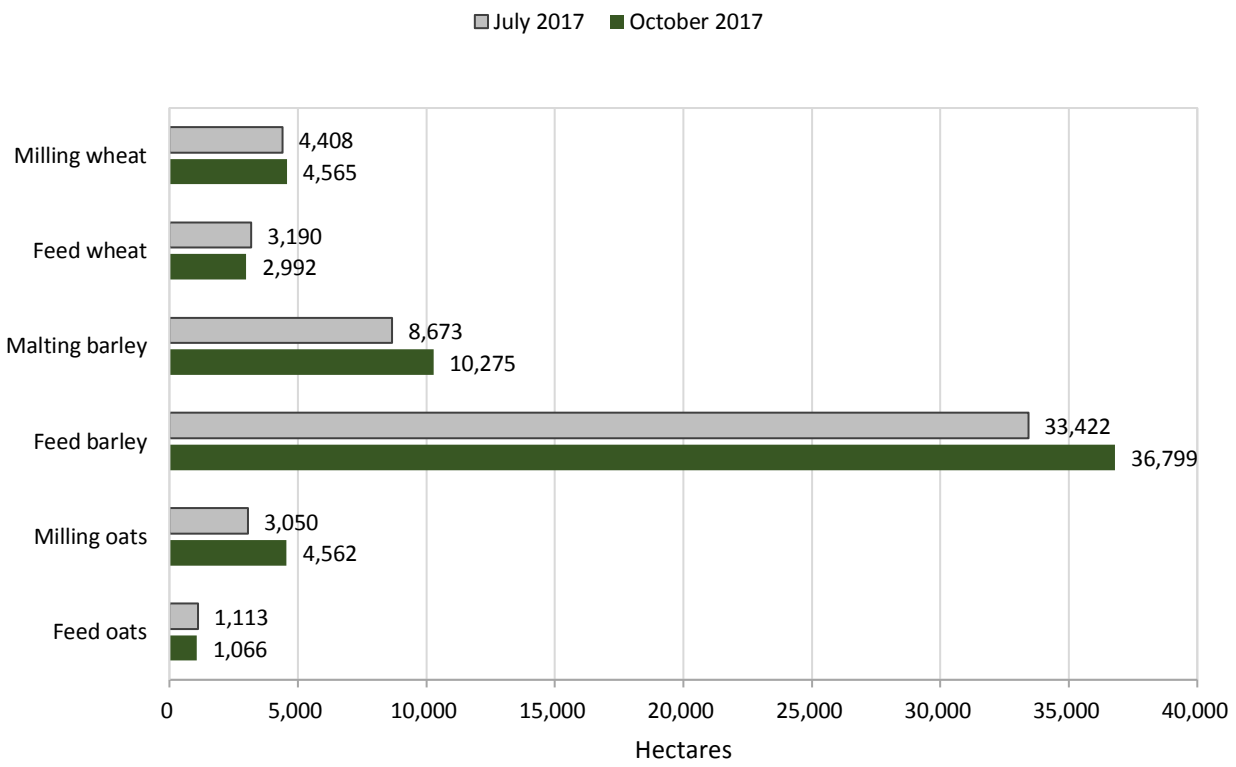

Figure 7. Comparison of spring sowing intentions as at July 1 2017 with actual spring sowings plus intentions as at October 10, 2017. As in Figure 4, this is a matched comparison.

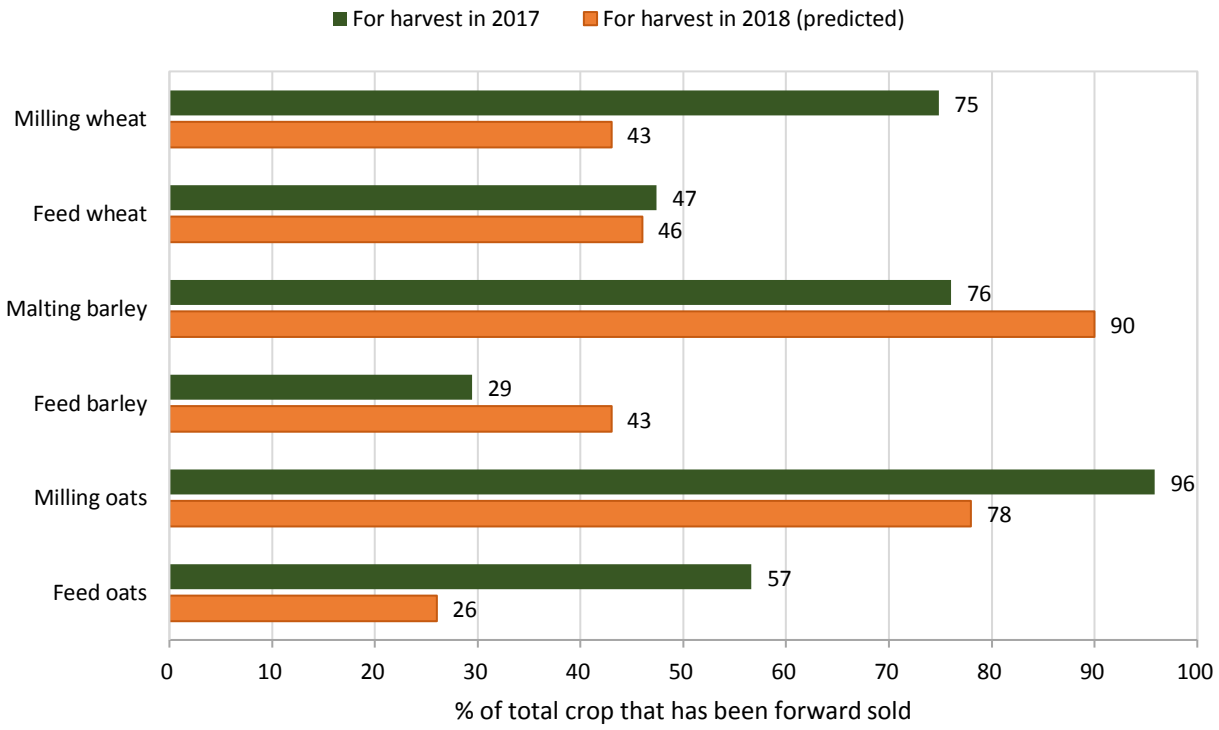

Figure 8. Comparison of percentage of total crop sown (autumn and spring sowings plus spring intentions) for 2017 and 2018 (predicted) harvests that had been forward sold as at October 10, 2016 and 2017 respectively. As in Figures 4 and 7, this is a matched comparison.