



The objective of this AIMI survey of cereal growers in New Zealand (NZ) was to determine, as at July 1, 2019:

- *the final size of the 2019 NZ harvest of wheat, barley and oats*
- *sales channels and level of on-farm storage, both sold and unsold, of the 2019 harvest*
- *autumn/winter sowings of wheat, barley and oats, and sowing intentions for the spring of 2019*

Survey details

The data from 140 NZ survey farms as at July 1, 2019 were scaled up to the national level using the most recent, 2018, NZ Agricultural Production Statistics (APS). 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 1st July 2019 and there will have been changes since this time. Note that unsold and sold grain carried over from the 2018 harvest was not estimated in this survey; however, on 1st April 2019 this carry-over grain was only 2.4% of the 2018 harvest, so adding any grain remaining on farms from 2018 would do little to change the complete picture.

Key Points at July 1, 2019 *(figures have been rounded to the nearest 100):*

- The final harvest data showed that yields were up slightly overall (by 3% over all six crops) compared to last season from a similar number of hectares.
- Unsold stocks of feed wheat are similar but unsold feed barley stocks are higher (up 39%, or 28,500 tonnes) than at this time last year. Unsold stocks of malting barley are also up on last year.
- Weather conditions for autumn/winter sowing and establishment have been judged to be good to perfect. Sowings and intentions are similar to last season with the exception of feed barley (down 10%) and milling oats (down 50%), although less than half of these two crops had actually been sown by July 1st 2019.

Final estimated average yields were, overall six crops, similar this season compared to last season (up 3%). Feed wheat yields were down an estimated 5%, feed barley yields up 6%, milling wheat yields up 9%, malting barley yields up 8%, milling oats yields up 14% and feed oats yields identical to last season. The tonnages of unsold feed grain were estimated at 67,100 t of feed wheat and 100,800 t of feed barley, as at 1 July 2019; in addition, there was an estimated 17,300 t of unsold milling wheat and 6,000 t of unsold malting barley. The predicted 2020 harvest hectares, when totalled over all six cereal crops, are 6% down on the 2019 harvest hectares (from 102,500 hectares to 95,900 hectares).

Milling wheat: Estimated final total tonnage (76,900 t) was up 14% compared to last year's harvest. Of this total, 77% has been sold (59,600 t), although a large amount of the sold grain is still stored on farm (64%). The amount of unsold grain is 17,300 tonnes (23%), which is slightly less than at the same time last year, 1 July 2018 (19,200 t). The amount of unsold grain decreased between 1 April and 1 July 2019 by 11,500 t (or 40%), as compared to an almost identical 11,600 tonne decrease in unsold grain between the same dates last year.

Feed wheat: Estimated final total tonnage (309,200 t) was up 2% compared to last year's harvest. Of this total, 78% has been sold (242,100 t), with 56% of the sold grain still stored on farm. The amount of unsold grain is 67,100 tonnes (22%), which is slightly less than at the same time last year, 1 July 2018 (68,300 t). The amount of unsold grain decreased between 1 April and 1 July 2019 (down by 32,100 t, or 32%), as compared to a similar 30,800 tonne decrease in unsold grain between the same dates last year.

Feed barley: Estimated final total tonnage (304,800 t) was down 2% compared to last year. Of this total tonnage 67% has been sold (204,000 t), with 45% of the sold grain still stored on farm. The amount of unsold grain is 100,800 tonnes (33%), which is considerably up on the same time last year, 1 July 2018 (72,400 t). The amount of unsold grain decreased between 1 April and 1 July 2019 (down by 32,700 t, or 24%), as compared to a similar 33,900 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 (74,200 t) was up by 6%, milling oats (24,600 t) was up by 33%, and feed oats (8,900 t) was up by 55%. Malting barley had 8% of the total harvest unsold (6,000 t) while milling oats and feed oats had 6% (1,400 t) and 5% (500 t) unsold, respectively, as at 1 July, 2019. Of the sold grain, 40% of malting barley was still on farm, as compared to 87% of milling oats and 47% of feed oats. Between 1 April and 1 July 2019, the amount of unsold grain decreased by 13% for malting barley, decreased by 4% for milling oats, and decreased by 69% for feed oats.

Sowings and sowing intentions: The actual area sown in autumn/winter wheat or barley, as at 1 July 2019, was down 14% overall on autumn/winter sowings plus intentions as at 1 April 2019, in spite of the fact that growers judged conditions for sowing and establishment to vary from good to excellent. 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 down overall by 5% as compared to the area harvested in 2019, or down by 6% on the area harvested in 2018. The main contributor to this decrease was a predicted decrease of 10% in feed barley sowings between the 2019 harvest and the predicted 2020 harvest. Over the two-year period (2018 harvest to predicted 2020 harvest), the harvest area for feed barley is predicted to decrease by 17%, while the harvest area for feed wheat is predicted to increase by 3% and the harvest area for milling wheat is predicted to increase by 16%. Over this same two-year period, the harvest areas for malting barley and milling oats are predicted to decrease by 1% (almost no change) and 41% respectively, while the harvest area for feed oats is predicted to increase by 72%. When totalled over all six cereal crops (including oats), the 2020 harvest hectares are predicted to be 6% down on the 2019 harvest hectares (from 102,500 hectares to 95,900 hectares).

Milling wheat (Tonnes)

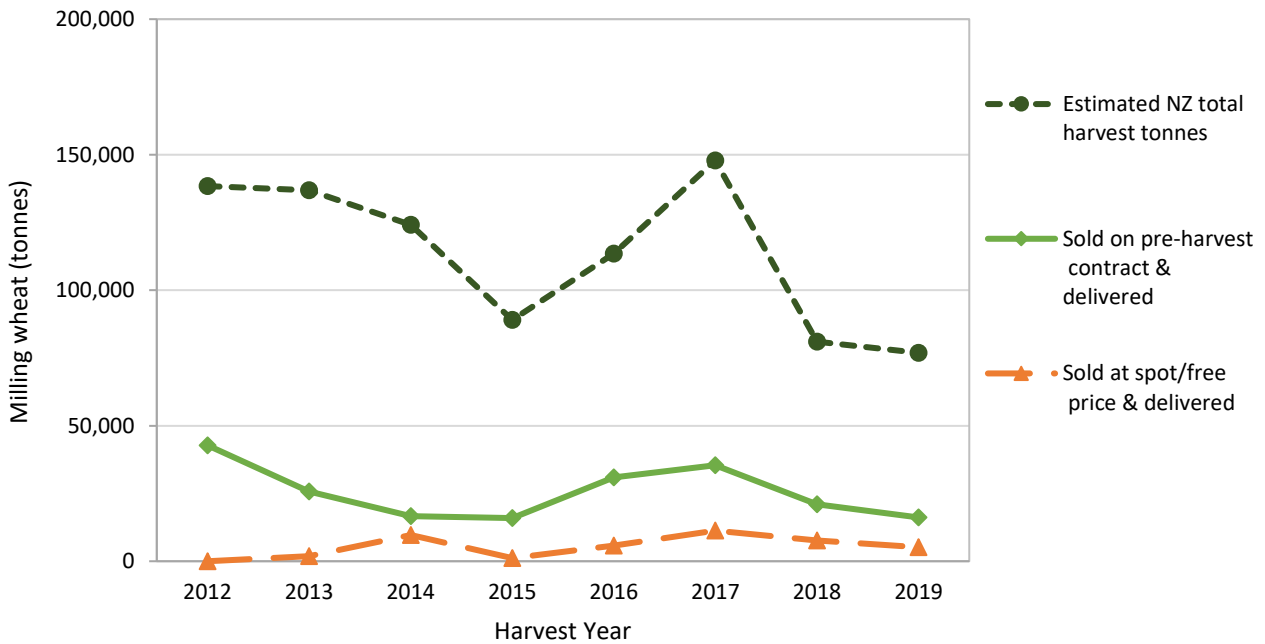


Figure 1a. NZ harvest tonnage and sales channels for Milling wheat (tonnes) as estimated on July 1 each year. (Note: All categories relate to that season’s harvest, excluding carryover stock. “Sold at spot/free price and delivered” includes grain sold for feed. Historical data are sourced from previous 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”.)

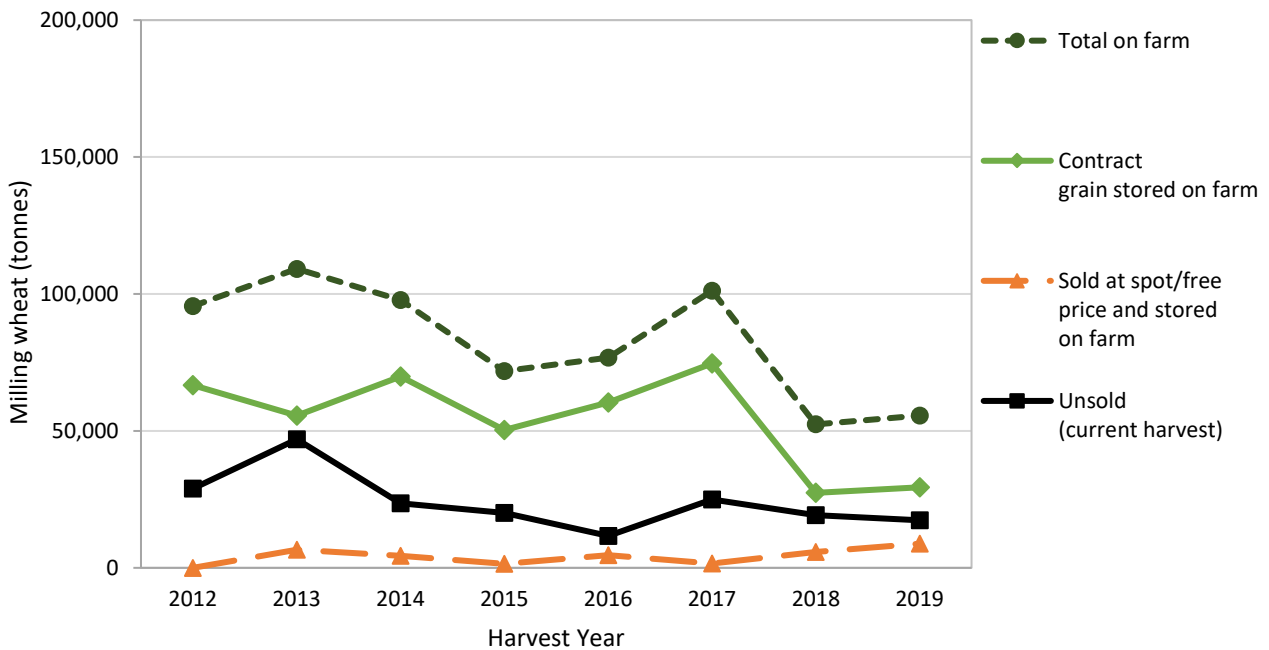


Figure 1b. NZ stocks on farm for Milling wheat (tonnes) as estimated on July 1 each year. (Note: Carryover stock from the previous season is excluded. Historical data are sourced from previous AIMI July Reports. In 2012 “Sold at spot/free price and stored on farm” was zero since the question was simply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

Feed Wheat (Tonnes)

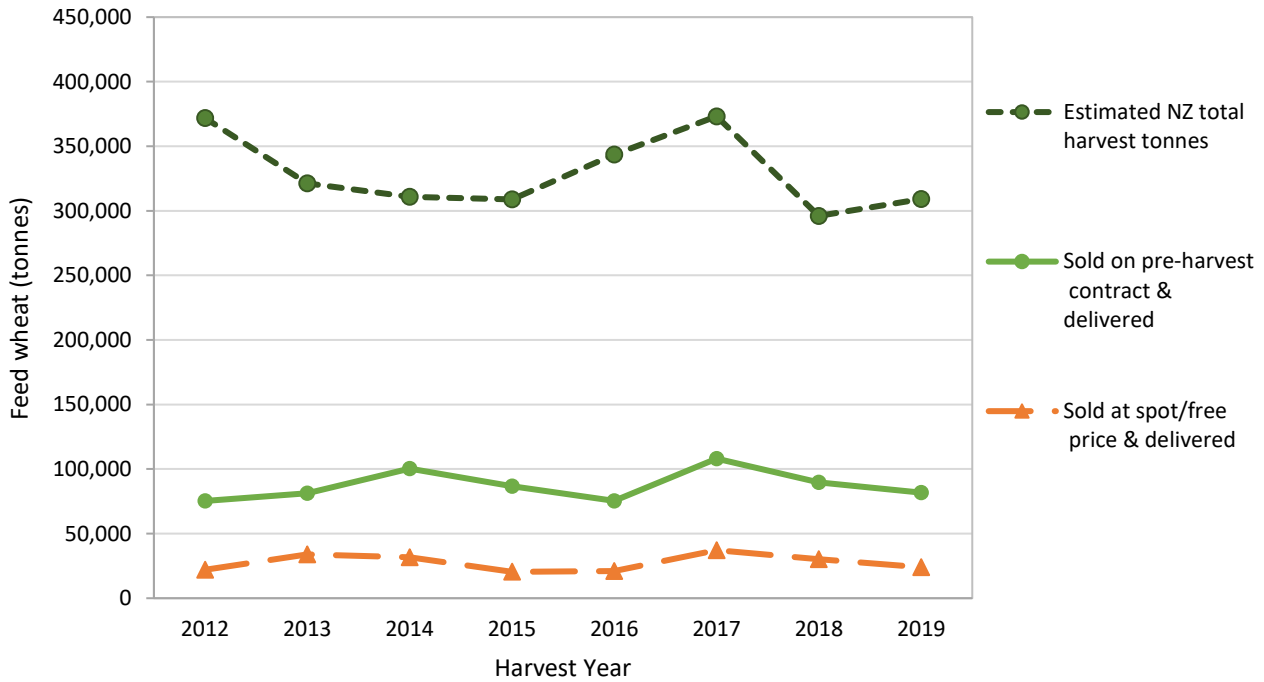


Figure 2a. NZ harvest tonnage and sales channels for Feed wheat (tonnes) as estimated on July 1 each year.

(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.)

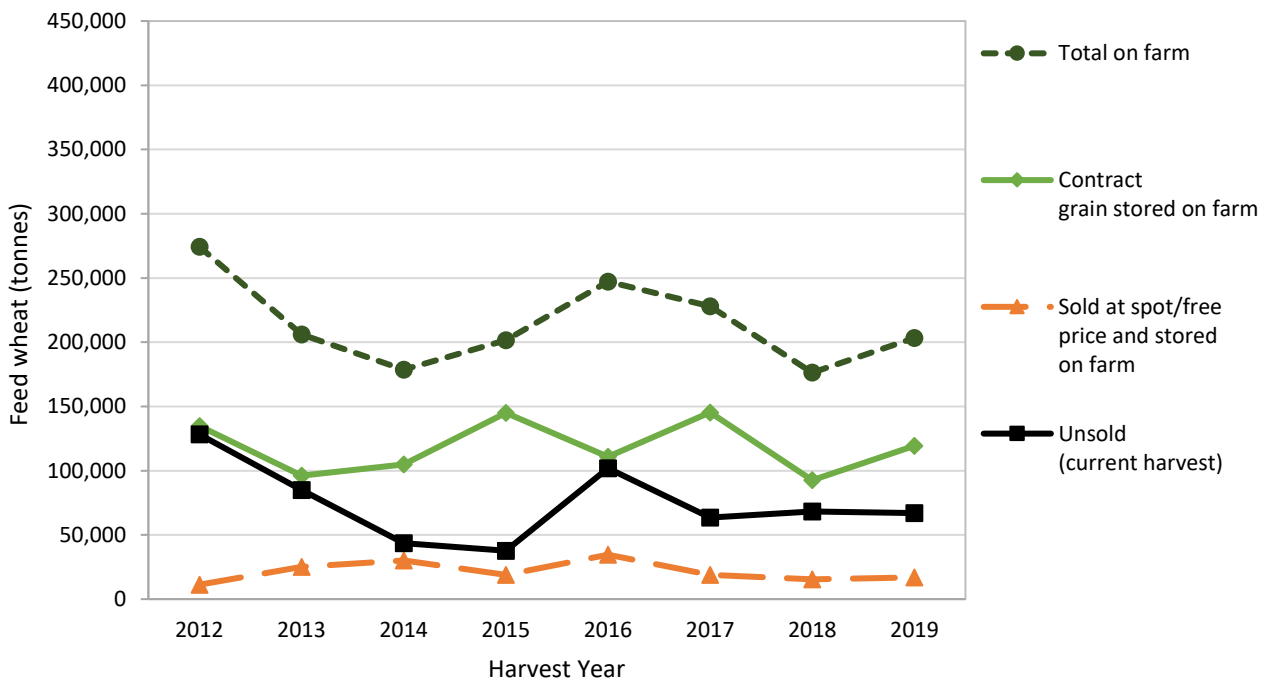


Figure 2b. NZ stocks on farm for Feed wheat (tonnes) as estimated on July 1 each year.

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

Feed Barley (Tonnes)

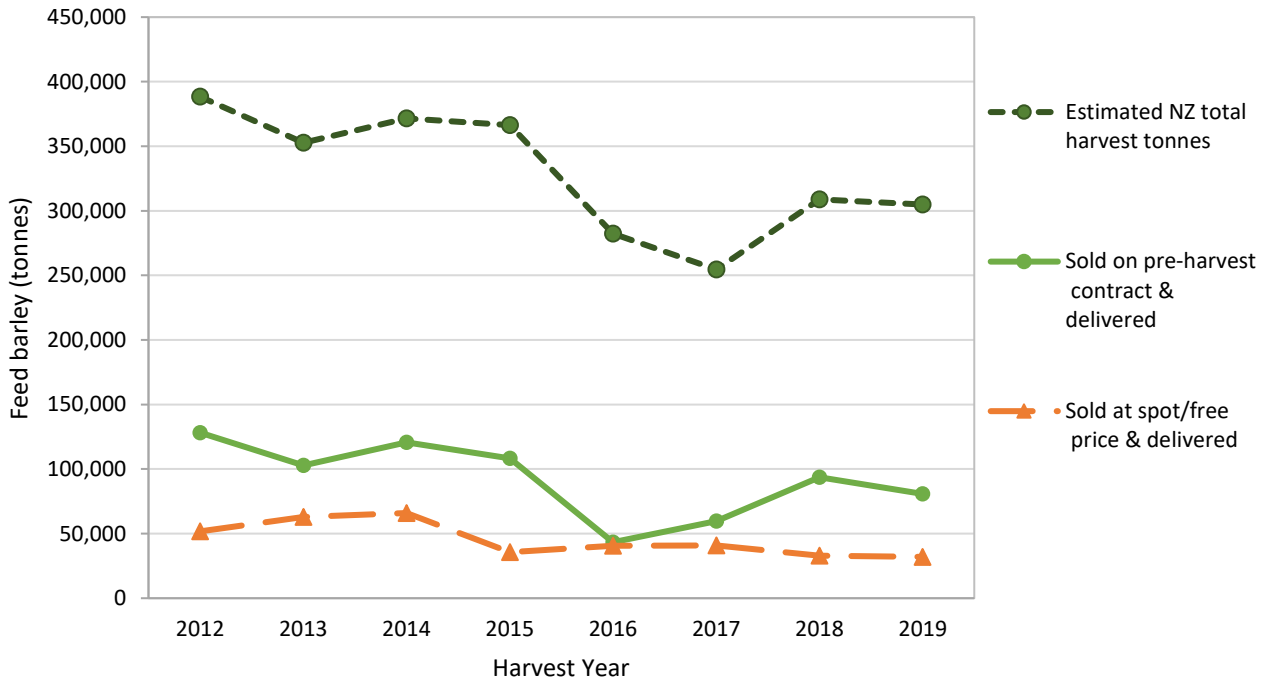


Figure 3a. NZ harvest tonnage and sales channels for Feed barley (tonnes) as estimated on July 1 each year.

(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.)

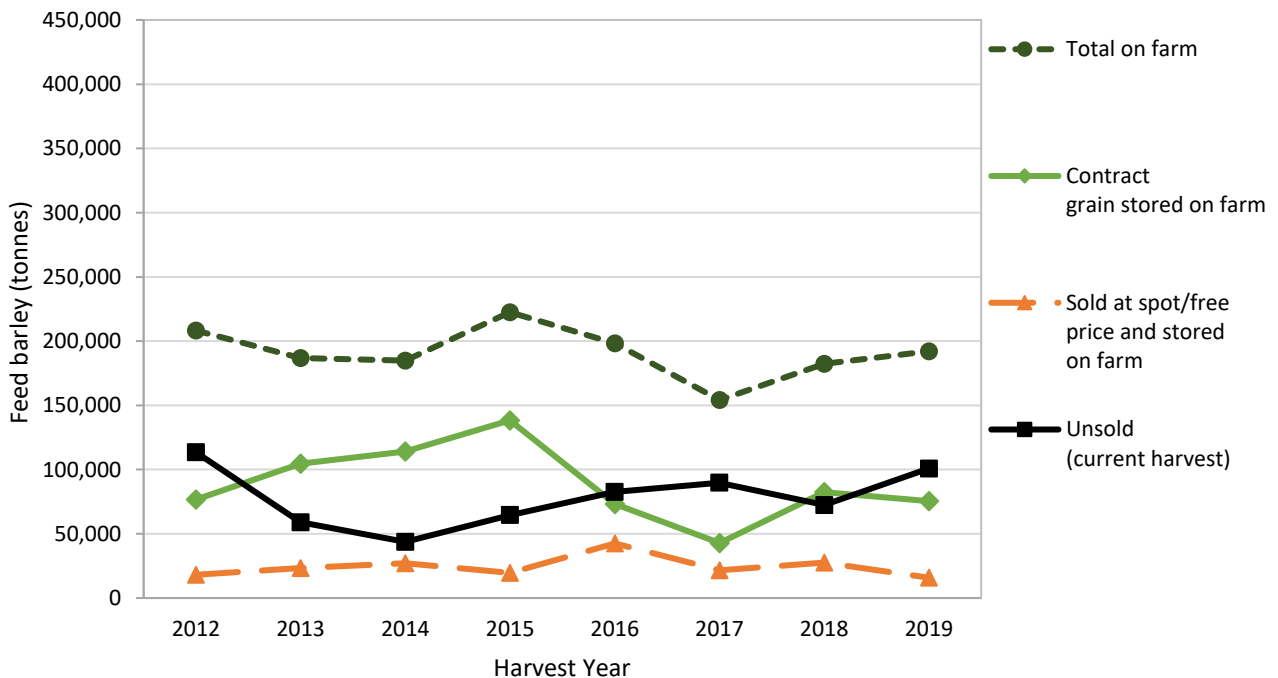


Figure 3b. NZ stocks on farm for Feed barley (tonnes) as estimated on July 1 each year.

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

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

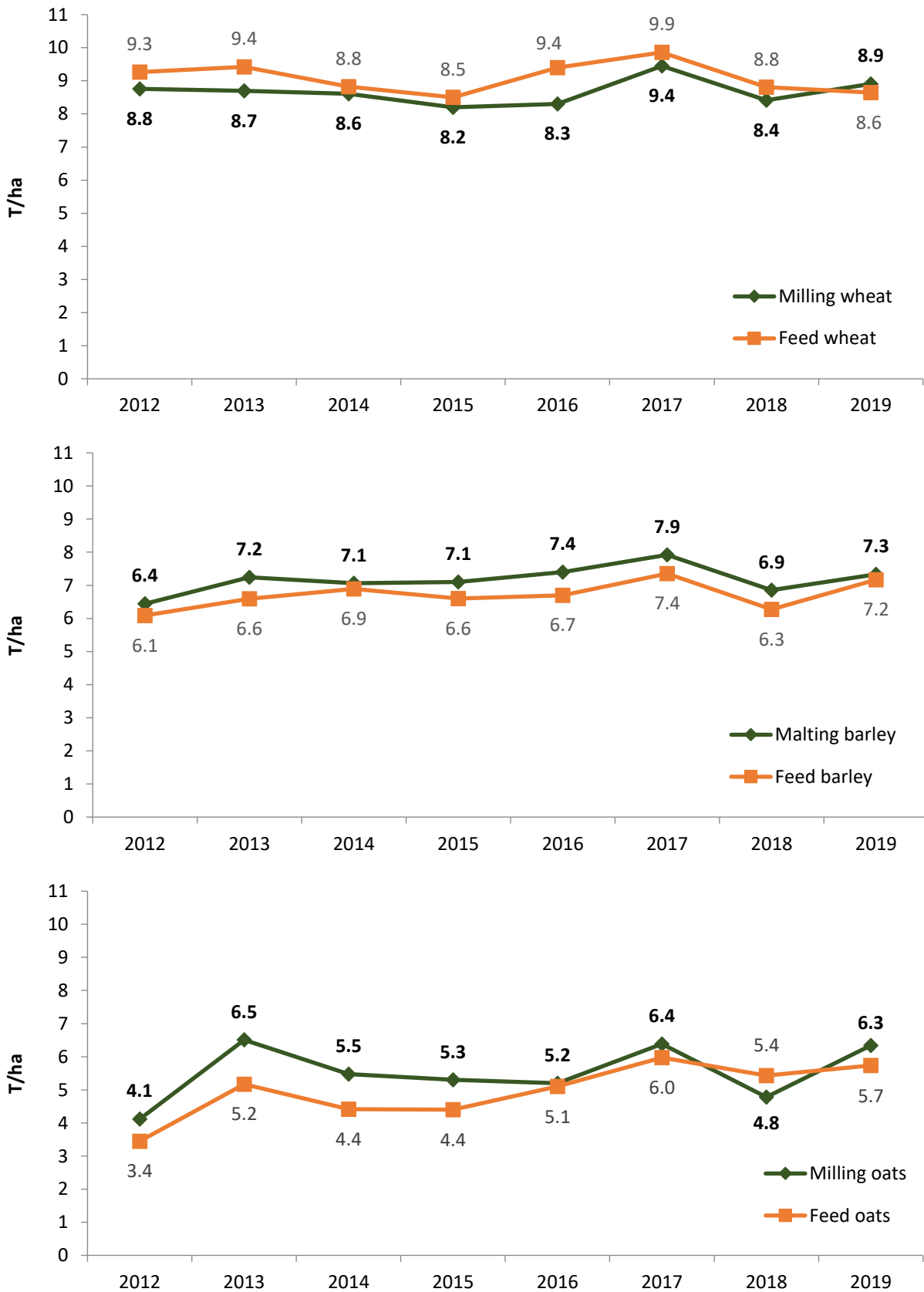


Figure 4. Comparison of NZ-wide yield (tonnes per ha) as estimated on July 1 each year, from 2012 to 2019 for six cereal crops.

(Note: Milling wheat contains biscuit and gristing varieties. Data are from AIMI reports for July 2012 to 2019.)

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

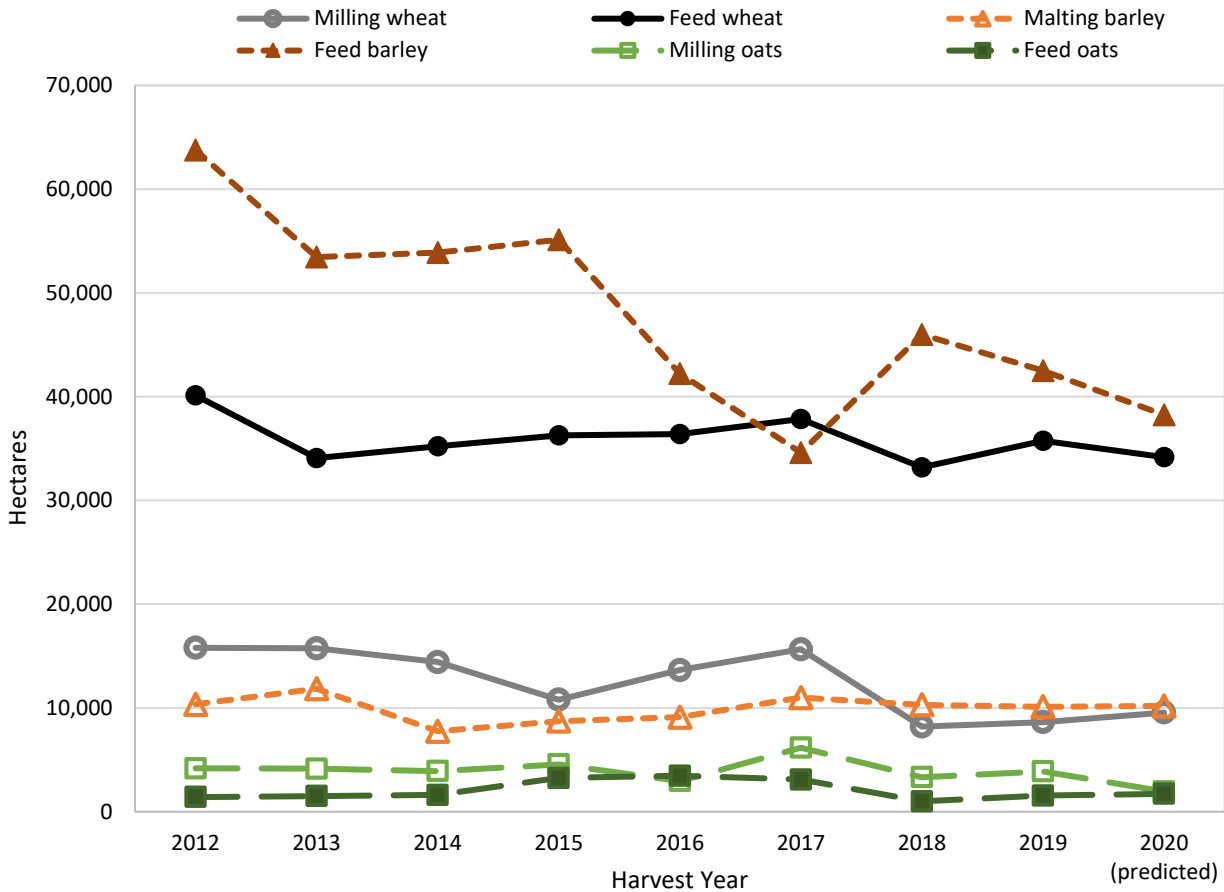


Figure 5. NZ harvest hectares for six cereal crops as estimated on July 1 each year, from 2012 to 2019 and predicted harvest hectares for 2020.

(Note: All figures represent final harvest hectares except for 2020 which is made up of hectares already sown and hectares intended to be sown for harvest in 2020. Refer to Fig. 6 for hectares already sown. Figures for 2018, 2019 and 2020 (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 for 2012 – 2017.)

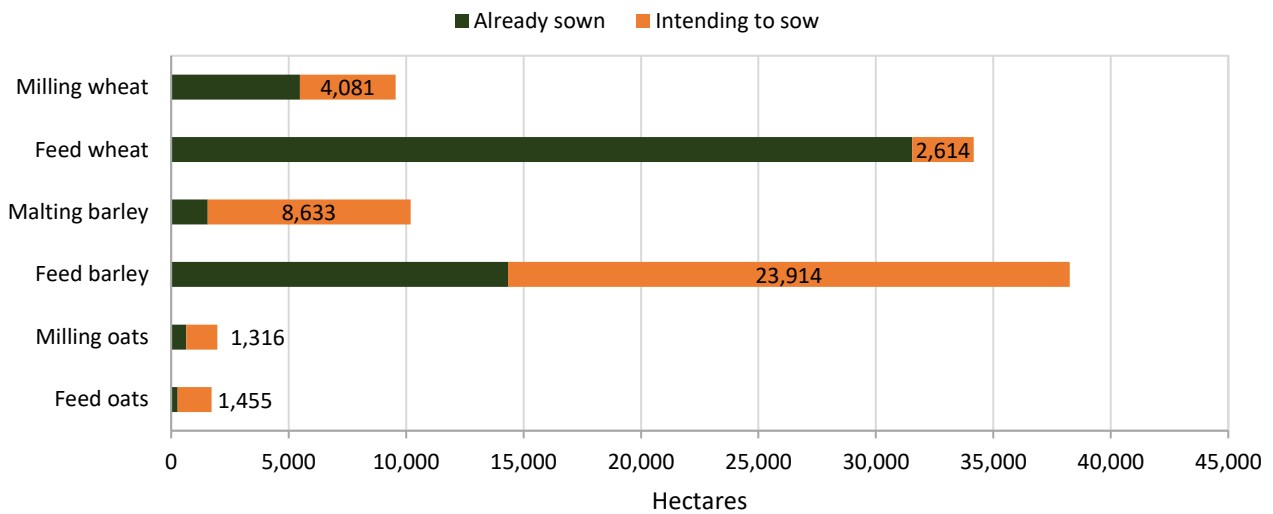


Figure 6. NZ autumn/winter 2019 sowings and spring 2019 sowing intentions (hectares) for six cereal crops as estimated on July 1, 2019.

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

Table 1. Detailed estimated national figures for the 2019 harvest, plus sold and delivered tonnages, for six cereal crops as at July 1, 2019.

	Units	Milling wheat	Feed wheat	Malting barley	Feed barley	Milling oats	Feed oats	Total (all crops)
Number of farmers in the survey who harvested this crop in 2019		39	97	32	108	11	14	138
2018 harvest								
Estimated NZ total hectares, 2018 harvest	Ha	8,208	33,192	10,303	45,997	3,330	1,002	102,032
Estimated NZ total tonnes, 2018 harvest	Tonnes	67,360	303,640	69,823	309,877	18,515	5,771	774,986
2019 harvest								
Estimated NZ total hectares, 2019 harvest (final figures)	Ha	8,632	35,761	10,123	42,518	3,884	1,556	102,474
Estimated NZ total tonnes, 2019 harvest (final figures)	Tonnes	76,903	309,178	74,211	304,787	24,639	8,929	798,647
Sold under pre-harvest contract and delivered by July 1 2019	Tonnes	16,104	81,797	39,708	80,683	3,006	3,435	224,733
Pre-harvest contract grain stored on farm on July 1 2019	Tonnes	29,462	119,246	25,891	75,416	20,172	3,998	274,185
Sold at spot/free price and delivered by July 1 2019	Tonnes	3,160	21,015	0	28,863	40	1,014	54,093
Sold at spot/free price and stored on farm on July 1 2019	Tonnes	8,817	16,912	1,607	15,850	0	0	43,185
(For milling or malting only) Sold for feed by July 1 2019	Tonnes	2,044	-	980	-	0	-	3,024
(For feed only) Used on own farm (2019 harvest only) by July 1 2019	Tonnes	-	3,102	-	3,165	-	27	6,294
Unsold stocks on hand (2019 harvest only) on July 1 2019	Tonnes	17,316	67,105	6,025	100,809	1,420	456	193,132
Sales channels (2019 harvest)								
"Sold" under pre-harvest contract (total) by July 1 2019	Tonnes	45,566	201,043	65,600	156,099	23,178	7,433	498,918
Sold at spot/free price (total) by July 1 2019 (includes sold for feed and used on farm)	Tonnes	14,021	41,030	2,587	47,878	40	1,041	106,597
Delivery status of sold grain (2019 harvest)								
Sold and delivered (total) by July 1 2019 (includes sold for feed and used on farm)	Tonnes	21,309	105,914	40,688	112,711	3,046	4,476	288,145
"Sold" and stored on farm (total) on July 1 2019	Tonnes	38,278	136,158	27,498	91,266	20,172	3,998	317,370
Total sales (2019 harvest)								
Sold (grand total) by July 1 2019 (includes sold for feed and used on farm)	Tonnes	59,587	242,073	68,186	203,977	23,218	8,474	605,515
Unsold stocks on hand (2019 harvest only) on July 1 2019	Tonnes	17,316	67,105	6,025	100,809	1,420	456	193,132
Comparison of hectares and tonnages between last two harvests								
Estimated % change in hectares, 2018 to 2019 harvest	%	5%	8%	-2%	-8%	17%	55%	0%
Estimated % change in tonnes, 2018 to 2019 harvest	%	14%	2%	6%	-2%	33%	55%	3%
Comparison of yields (t/ha) between last two harvests								
NZ-wide estimated yield, 2018 harvest	T/ha	8.2	9.1	6.8	6.7	5.6	5.8	7.6
NZ-wide estimated yield, 2019 harvest	T/ha	8.9	8.6	7.3	7.2	6.3	5.7	7.8

Table 1 Continued.

	Units	Milling wheat	Feed wheat	Malting barley	Feed barley	Milling oats	Feed oats	Total (all crops)
Number of farmers in the survey who harvested this crop in 2019		39	97	32	108	11	14	138
Comparison of Unsold grain as at July 1, 2019, with Unsold grain as at April 1, 2019								
Unsold (2019 harvest only) as at April 1 2019 (incl. unharvested grain) (new matched estimate, based upon scaling up data from exact same 140 survey farms as above)	Tonnes	28,865	99,200	6,909	133,481	1,479	1,472	271,406
Unsold (2019 harvest only) on July 1 2019 (as above)	Tonnes	17,316	67,105	6,025	100,809	1,420	456	193,132
Estimated drop in tonnes of Unsold grain, 1 April 2019 to 1 July 2019	Tonnes	11,549	32,095	884	32,672	58	1,016	78,274
Estimated % drop in tonnes of Unsold grain, 1 April 2019 to 1 July 2019	%	40%	32%	13%	24%	4%	69%	29%
Note: A negative drop means that the tonnage of unsold grain from the 2019 harvest has increased since the last survey date (1 April, 2019).								
Comparison of Unsold grain as at July 1, 2019, with Unsold grain at the same date last year (July 1, 2018)								
Unsold (2018 harvest only) as at July 1 2018 (from July 1 2018 AIMI report)	Tonnes	19,188	68,269	1,228	72,352	267	344	161,647
Unsold (2019 harvest only) on July 1 2019 (as above)	Tonnes	17,316	67,105	6,025	100,809	1,420	456	193,132
Change in tonnes of Unsold grain, 1 July 2018 to 1 July 2019	Tonnes	-1,872	-1,163	4,797	28,458	1,153	112	31,485

Statistics NZ is gratefully acknowledged for supplying Final 2018 NZ Agricultural Production Statistics data on total hectares and tonnes for wheat, barley and oats.

In Table 2, feed barley sowings/intentions, as at 1 July 2019, show a 10% decrease as compared to the last harvest (2019), and a 17% decrease as compared to the previous (2018) harvest. Feed wheat sowings/intentions show an estimated 4% decrease compared to the last harvest (2019), and an estimated 3% increase over the previous harvest (2018). Milling wheat sowings/intentions have increased by a total of 16% over two years. As a total over all six cereal crops, sowings/intentions are 6% down on the last harvest (2019), and 6% down on the previous harvest (2018). Autumn/winter actual sowings, as at 1 July 2019, were down 14% on autumn/winter sowings/intentions as at 1 April 2019, in spite of almost all surveyed growers saying autumn/winter had been good to excellent for sowing and establishment.

Table 2. Sowings and sowing intentions for six cereal crops as at July 1, 2019.

	Milling wheat (ha)	Feed wheat (ha)	Malting barley (ha)	Feed barley (ha)	Milling oats (ha)	Feed oats (ha)	Total (all crops)
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 2019	43	94	34	97	8	16	137
Estimated NZ total hectares, 2018 harvest	8,208	33,192	10,303	45,997	3,330	1,002	102,032
Estimated NZ total hectares, 2019 harvest	8,632	35,761	10,123	42,518	3,884	1,556	102,474
Estimated NZ total autumn/winter 2019 sowings as at July 1, 2019 (hectares, for harvest in 2020)	5,481	31,549	1,557	14,339	647	269	53,842
Estimated NZ total spring 2019 sowing intentions as at July 1, 2019 (hectares, for harvest in 2020)	4,081	2,614	8,633	23,914	1,316	1,455	42,013
Predicted NZ total hectares, 2020 harvest (Autumn/winter sowings 2019 and Spring 2019 sowing intentions combined)	9,562	34,164	10,189	38,253	1,963	1,724	95,855
Comparison of hectares between 2018, 2019 and 2020 (predicted) harvests							
Estimated % change in NZ total harvest hectares, 2018 to 2019 harvest	5%	8%	-2%	-8%	17%	55%	0%
Estimated % change in NZ total harvest hectares, 2019 to 2020 harvest (predicted)	11%	-4%	1%	-10%	-49%	11%	-6%
Estimated % change in NZ total harvest hectares over two seasons, 2018 to 2020 harvest (predicted)	16%	3%	-1%	-17%	-41%	72%	-6%
Comparison of Autumn/winter 2019 actual sowings (as at July 1, 2019) with autumn/winter sowings plus intended sowings as at April 1, 2019 (based upon matched data)							
Estimated NZ total autumn/winter 2019 sowings and sowing intentions as at April 1, 2019 (date of previous survey) (hectares, for harvest in 2020)	6,028	34,992	3,133	17,214	268	1,314	62,949
Change in autumn/winter 2019 actual sowings (as at July 1, 2019) compared to autumn/winter sowings and sowing intentions as at April 1, 2019 (ha)	-547	-3,443	-1,576	-2,875	379	-1,045	-9,107
Percentage change in autumn/winter 2019 actual sowings (as at July 1, 2019) compared to autumn/winter sowings and sowing intentions as at April 1, 2019	-9%	-10%	-50%	-17%	141%	-80%	-14%

Note: The matched comparison in the last three rows was based upon scaling up data from the *exact same* survey farms for both survey dates.

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.