



*The objective of this AIMI survey of maize growers in New Zealand (NZ) was to determine:*

- *final figures for the 2019 harvest of maize grain and silage*
- *sales of the 2019 harvest of maize grain since June 1, 2019*
- *levels of unsold maize grain from the 2019 harvest*
- *sowings and sowing intentions for the current season for maize grown for grain and silage*

### Survey details

The data from 99 NZ survey farms who completed all of the last three maize surveys (October 2018 and June and October 2019), as at October 31, 2019, were scaled up to the national level using the most recent, 2018, NZ Agricultural Production Statistics (APS) for maize grain and maize silage. 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 31st October 2019 and there will have been changes since this time.

**Note:** Stocks held by merchants are not considered in the survey.

### Key Points as at 31 October 2019 (figures have been rounded to nearest 100):

- Final average yields of maize grain (10.9 t/ha) and maize silage (21.3 t dry matter (DM)/ha) for the 2019 NZ harvest were similar to last season (at 11.1 t/ha and 20.7 t DM/ha respectively).
- For maize grain, the estimated final total tonnage of 192,700 tonnes for the 2019 NZ harvest was almost identical to last season's harvest tonnage (192,000 t), as the result of a similar yield (down 2%) from a similar harvest area (up 2%). An estimated 97.0% of the total crop had been sold, leaving 5,800 tonnes unsold as at October 31, 2019 (as compared to 14,100 tonnes on June 1, 2019, and 8,800 tonnes on 31 October last year, 2018). Sales under pre-harvest contract were markedly up on the previous year while sales at a spot/free price were down accordingly.  
Spring 2019 sowings and sowing intentions as at 31 October, 2019, were estimated to be up 9% on the area harvested last season. However, sowing was only 76% complete as at October 31, 2019, which was a reflection of wet and cold conditions in some areas.
- For maize silage, the estimated final total tonnage of 1,148,700 tonnes DM for the 2019 NZ harvest was up 8% compared to last season's harvest tonnage (1,063,200 t DM), as the result of a similar yield (up 3%) from a slightly higher harvest area (up 5%).  
Spring 2019 sowings and sowing intentions as at 31 October, 2019 were estimated to be down 7% on the area harvested last season. Sowing was 62% complete as at October 31, 2019, which was again a reflection of wet and cold conditions in some areas.
- Some maize grain growers expressed their concern about the importation of maize grain, with the associated biosecurity risk and possible reductions in future sales of NZ maize grain.

**Table 1. Detailed final estimated national NZ figures for the 2019 harvest of maize grain and maize silage crops, plus sold and unsold tonnages of maize grain, as at October 31, 2019.**

		Maize grain	Maize silage
Number of farmers in the survey who harvested this crop in 2019	Units	32	79
<b>2018 harvest</b>			
Estimated NZ total hectares, 2018 harvest	Ha	17,300	51,398
Estimated NZ total tonnes, 2018 harvest	Tonnes	192,000	1,063,246
<b>2019 harvest</b>			
Estimated NZ total hectares, 2019 final harvest figures	Ha	17,700	53,931
Estimated NZ total tonnes, 2019 final harvest figures	Tonnes	192,677	1,148,734
Sold under pre-harvest contract by October 31, 2019	Tonnes	167,046	-
Sold at spot/free price by October 31, 2019	Tonnes	15,263	-
Used on own farm by October 31, 2019	Tonnes	4,544	-
Unsold stocks on hand (2019 harvest only) on October 31, 2019	Tonnes	5,824	-
<b>Total sales (2019 harvest)</b>			
Sold (grand total) by October 31, 2019 (includes used on farm)	Tonnes	186,853	-
Unsold stocks on hand (from 2019 harvest) on October 31, 2019	Tonnes	5,824	-
<b>Comparison of hectares and tonnages between the last two harvests</b>			
Estimated % change in hectares, 2018 to 2019 harvest	%	2.3	4.9
Estimated % change in tonnes, 2018 to 2019 harvest	%	0.4	8.0
<b>Comparison of final yields (t/ha) between the last two harvests</b>			
NZ-wide estimated yield, 2018 harvest	T/ha	11.1	20.7
NZ-wide estimated yield, 2019 harvest	T/ha	10.9	21.3
<b>Unsold stocks on hand on June 1, 2019, the last survey date (based upon matched data)</b>			
Unsold stocks on hand (from 2019 harvest) on June 1, 2019 (of total crop)	Tonnes	14,091	-
<b>2018 harvest sales at same time last year, October 31, 2018 (based upon matched data)</b>			
Sold under pre-harvest contract by October 31, 2018 (2018 harvest)	Tonnes	144,865	-
Sold at spot/free price by October 31, 2018 (2018 harvest)	Tonnes	35,353	-
Used on own farm by October 31, 2018 (2018 harvest)	Tonnes	2,947	-
Unsold stocks on hand (from 2018 harvest) on October 31, 2018	Tonnes	8,836	-

**Note:** The matched comparisons in the last two sections were based upon scaling up data from the exact same survey farms for the last three AIMI maize surveys. Statistics NZ is gratefully acknowledged for supplying final 2018 NZ Agricultural Production Statistics data on total hectares and tonnes for maize grain, and total hectares for maize silage.

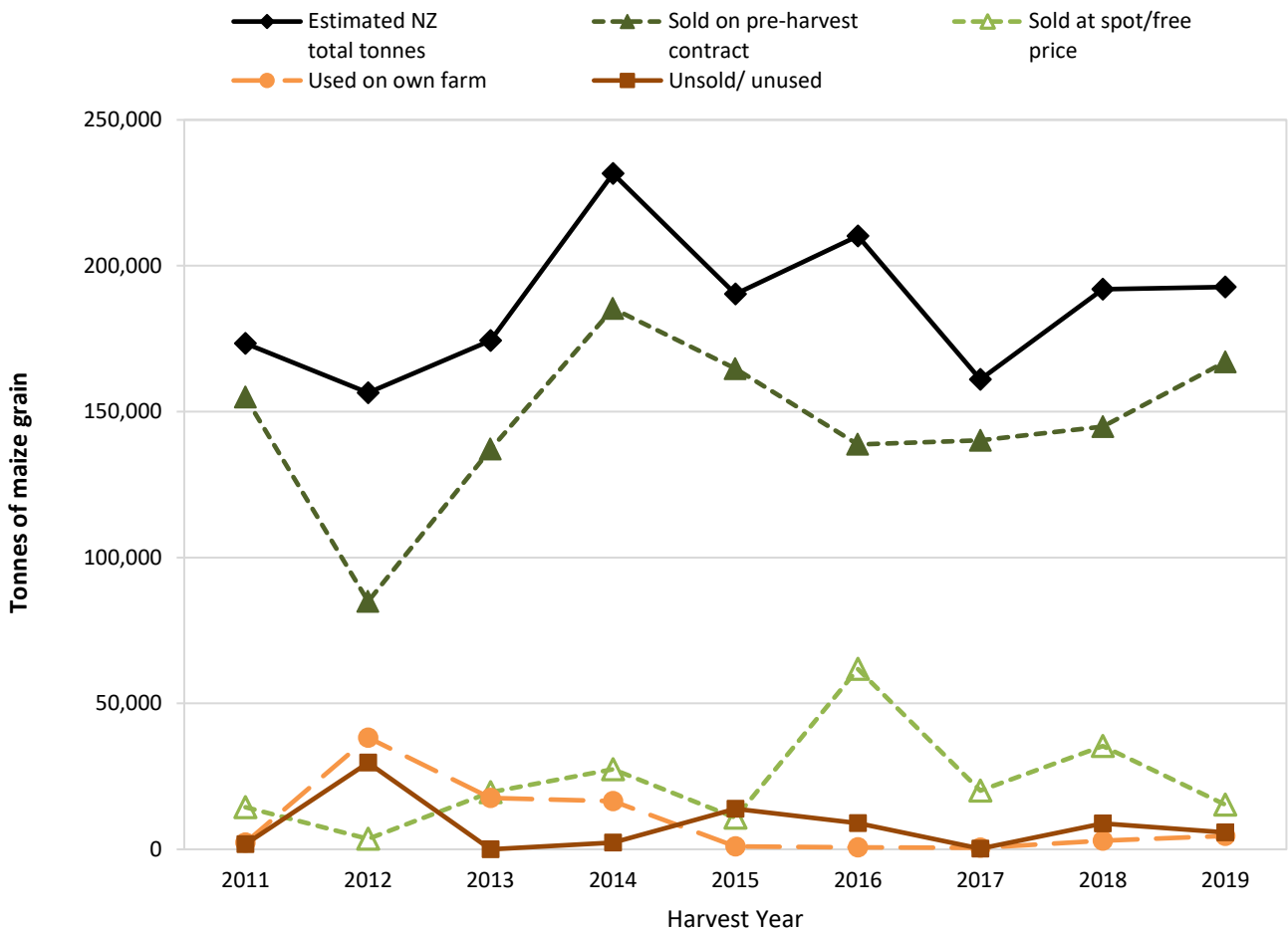
In Table 1, the unsold tonnage of the 2019 harvest of maize grain has reduced by 59% in the period between the AIMI surveys dated June 1, 2019 and October 31, 2019. Also, the unsold tonnage is slightly lower than at the same time last year (5,800 t this year versus 8,800 t last year).

**Table 2. Estimated NZ sowings and sowing intentions for maize grain and maize silage as at October 31, 2019.**

	Maize grain (ha)	Maize silage (ha)
<b>Number of farmers in survey who have sown or intend to sow this crop as at October 31, 2019</b>	<b>31</b>	<b>69</b>
Estimated NZ total hectares, 2018 harvest	17,300	51,398
Estimated NZ total hectares, 2019 harvest	17,700	53,931
<b>Sowings and intentions, 2019/2020 season (hectares, for harvest in 2020)</b>		
Estimated NZ total hectares already sown by October 31, 2019	14,649	30,880
Estimated NZ total hectares intending to sow after October 31, 2019	4,668	19,262
Estimated NZ total hectares (sowings and intentions), 2020 harvest	19,317	50,142
<b>Comparison of hectares between the 2018, 2019 and 2020 (predicted) harvests</b>		
Estimated % change in NZ total sowings, 2018 to 2019 harvest	2.3	4.9
Estimated % change in NZ total sowings, 2019 to 2020 (predicted) harvest	9.1	-7.0
<b>Comparison of sowing intentions as at June 1, 2019 with sowings plus intentions as at Oct 31, 2019 (based upon matched data)</b>		
Estimated NZ total 2019 sowing intentions as at June 1, 2019 (hectares, for harvest in 2020)	17,258	52,204
Change in estimated NZ total 2019 sowings & intentions between June 1, 2019 and Oct 31, 2019 (hectares, for harvest in 2020)	2,059	-2,062

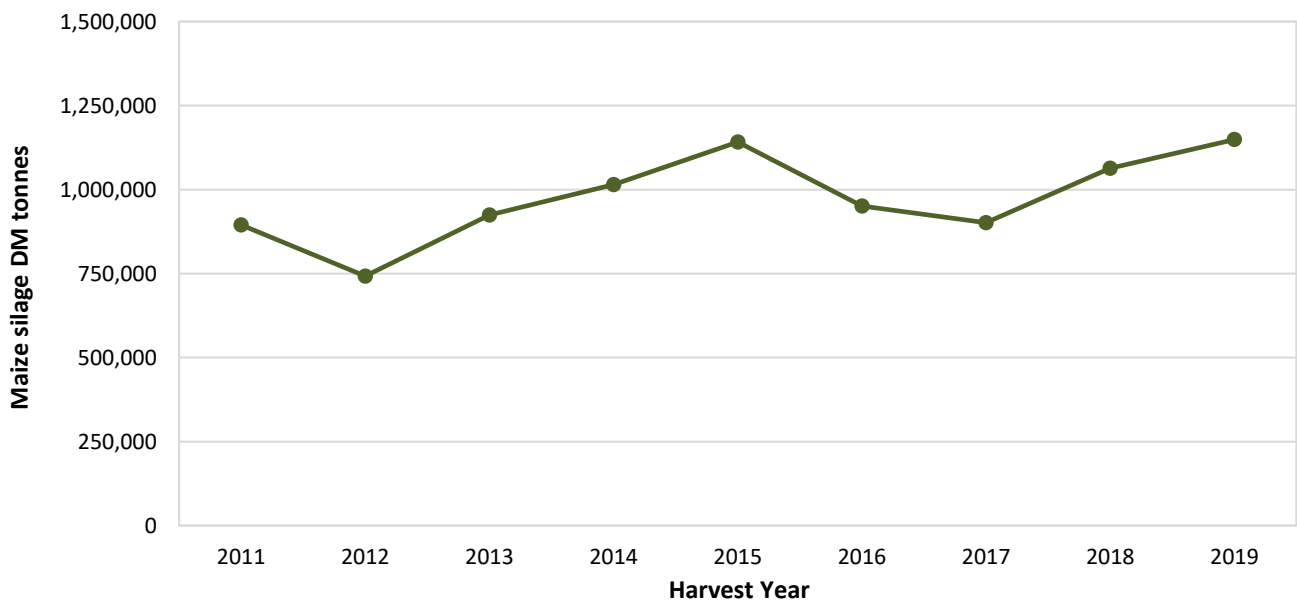
Note: The matched comparisons in the last two sections were based upon scaling up data from the exact same survey farms for the last three AIMI surveys.

In Table 2, the estimated area sown plus sowing intentions for maize grown for grain is up slightly (by 9%) this season as compared to what was harvested last season (2019 harvest). The estimated sowings plus intentions for maize grown for silage is slightly down (by 7%) on what was harvested last season (2019 harvest). However, wet and cold weather has delayed sowing in some areas, so as at 31 October 2019, the maize grain and maize silage crops were only 76% and 62% sown, respectively. As a result, if not all crops are sown, the 2020 harvest could be smaller than predicted in this report.



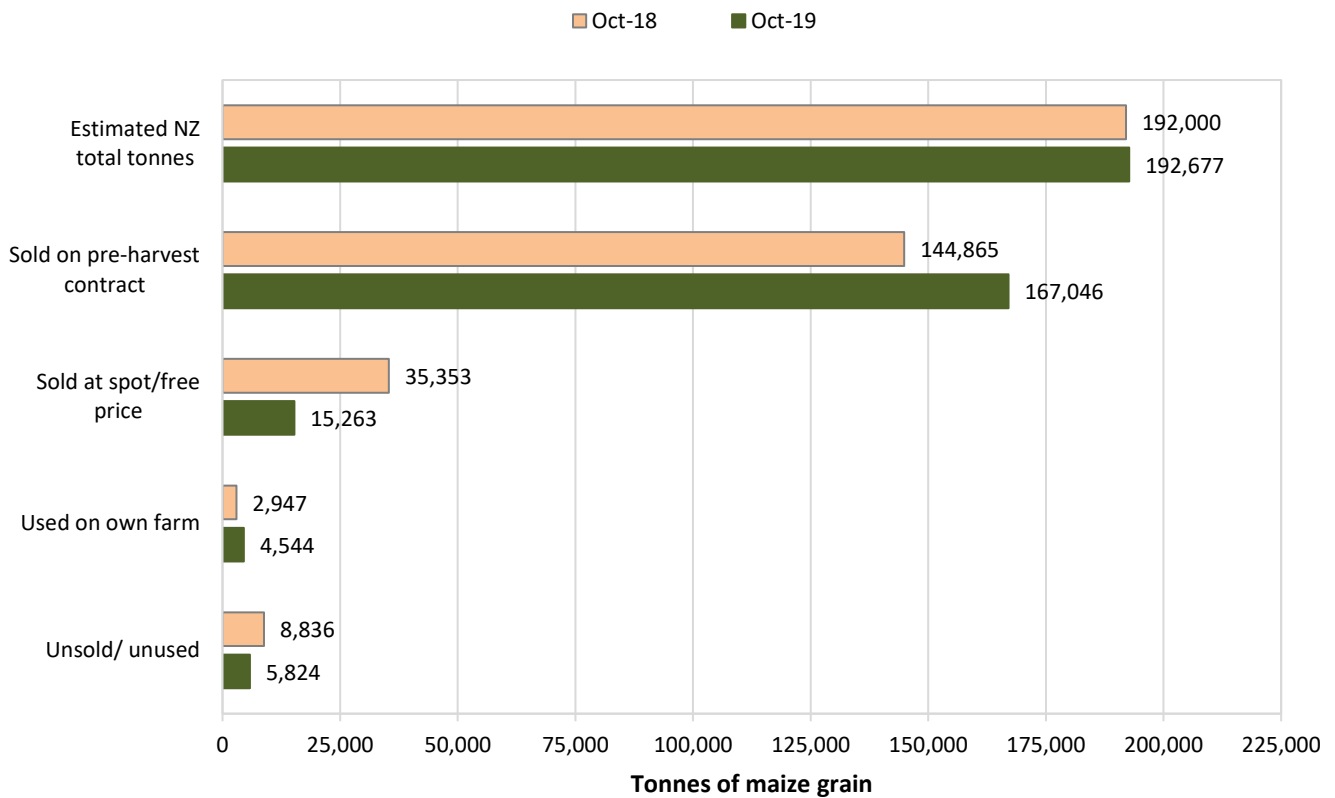
**Figure 1. Maize grain final NZ harvest tonnages and sales as estimated in October each year.**

Note: Historical data for 2011 to 2017 are from October AIMI Maize Reports for 2017 and earlier, while data for 2018 and 2019 are matched data from the current report.

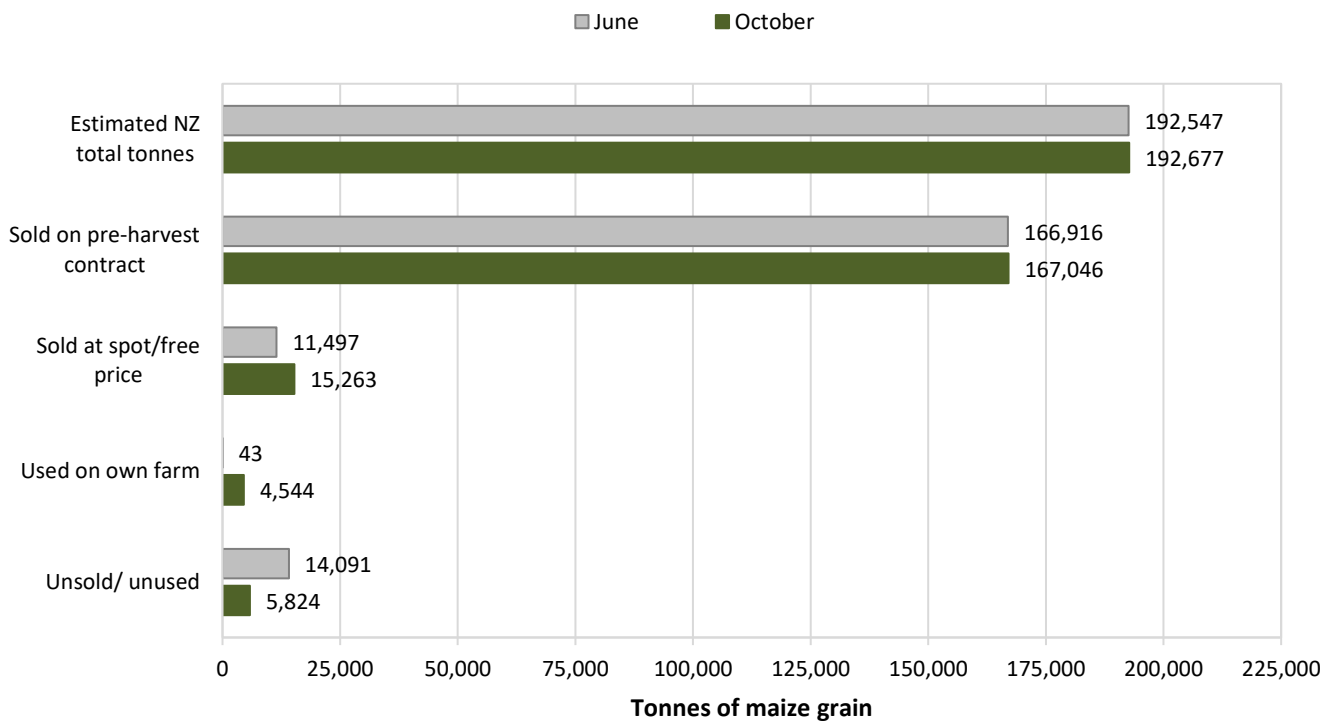


**Figure 2. NZ maize silage harvest tonnages (dry matter) estimated in October each year.**

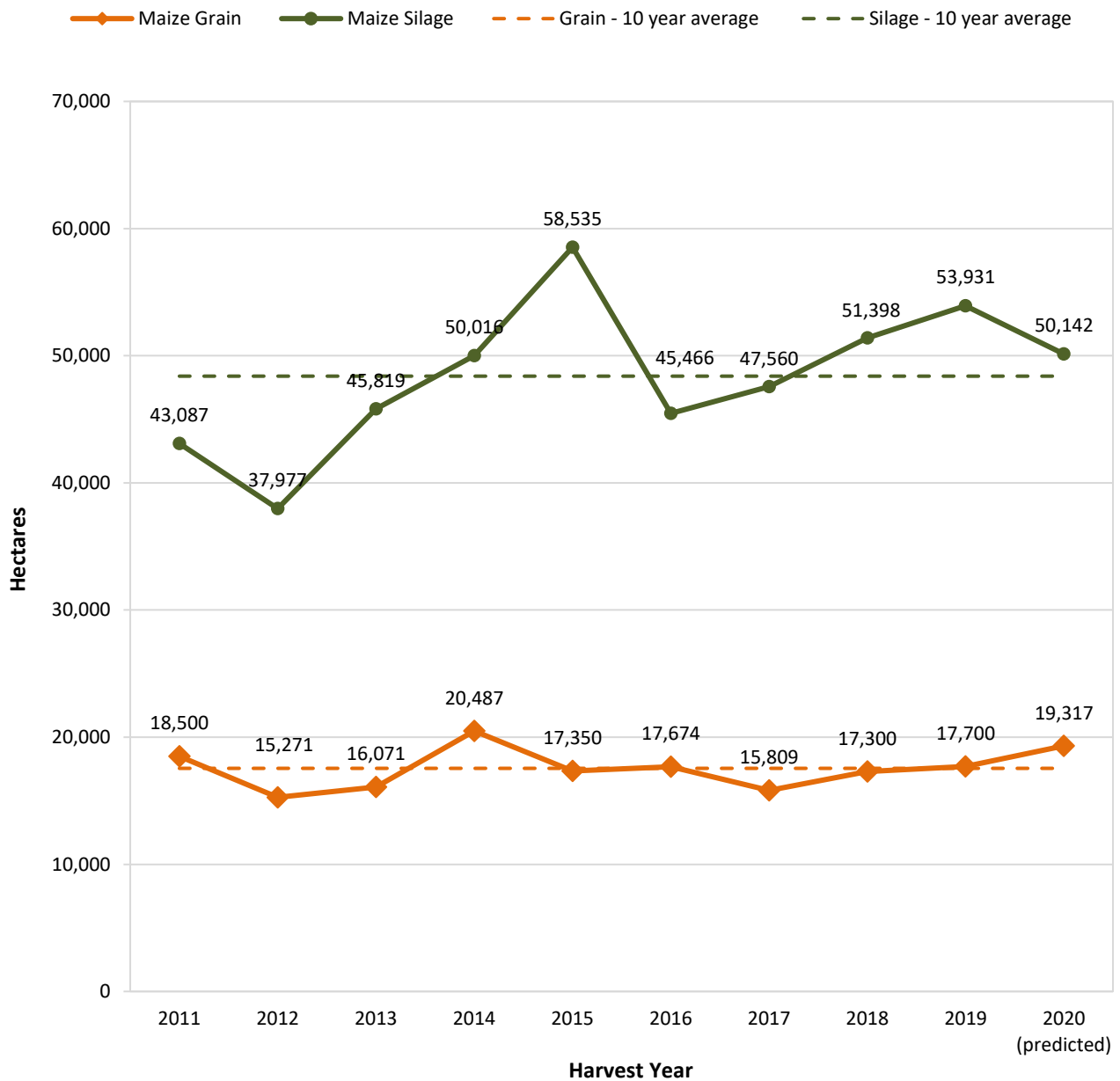
Note: Historical data for 2011 to 2017 are from the annual October AIMI Maize Reports, except that estimates for 2011 to 2014 have been retrospectively adjusted in the light of recently obtained APS hectare estimates for each preceding year. Data for 2018 and 2019 are matched data from the current report.



**Figure 3. Comparison of maize grain tonnages and sales for NZ harvest between October 31, 2018 and October 31, 2019.** All estimates are based upon scaling up data from growers in the current survey sample, so provide a more precise matched comparison.

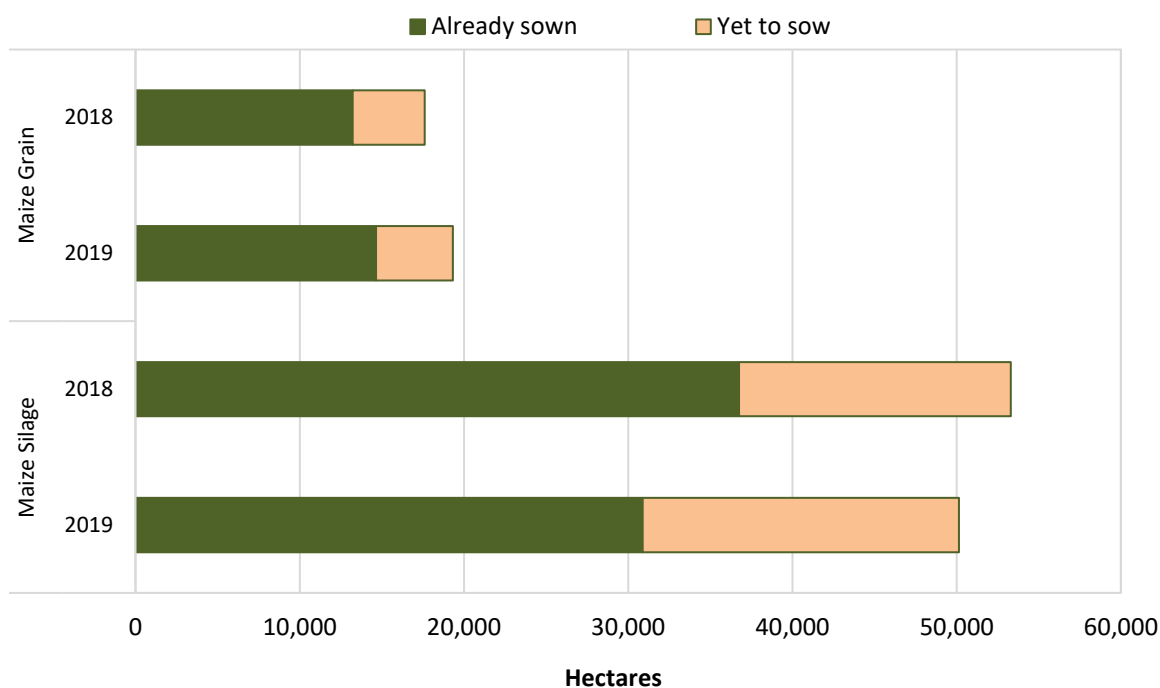


**Figure 4. Comparison of maize grain tonnages and sales for the 2019 NZ harvest between June 1 and October 31, 2019.** All estimates are based upon scaling up data from growers in the current survey sample, so provide a more precise matched comparison.

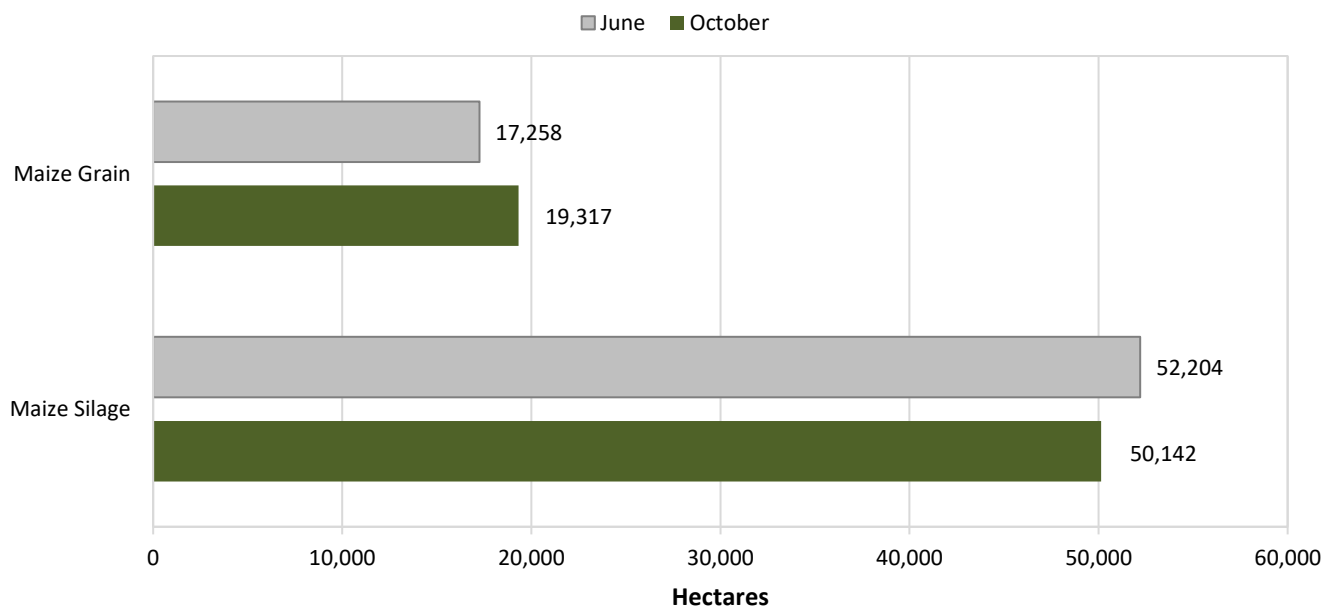


**Figure 5. NZ harvest hectares estimated in October each year, from 2011 to 2019, and predicted hectares for harvest in 2020. Long-term means (10--year averages) are included as dashed horizontal lines.**

**Note:** Figures for 2018, 2019 and 2020 (predicted) are matched data from the current report. Other figures are sourced from previous October AIMI Maize Reports except that for maize silage, estimates for 2011 to 2014 have been retrospectively adjusted in the light of recently obtained APS hectare estimates for each preceding year.



**Figure 6. Estimated NZ hectares of maize already sown in spring 2019, together with NZ hectares yet to sow (spring intentions) for harvest in 2020, based on data collected on October 31, 2019. For comparison, the corresponding 2018 estimates (for harvest in 2019) are also given, based on data collected on October 31, 2018. As in Figures 3 and 4, the latter estimates are based upon scaling up October 31, 2018 data from growers in the current survey sample, so provide a more precise matched comparison.**



**Figure 7. Comparison of NZ spring maize sowing intentions as at June 1, 2019 with actual sowings plus intentions as at October 31, 2019. As in Figures 3, 4 and 6, this is a matched comparison.**

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