

## **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.

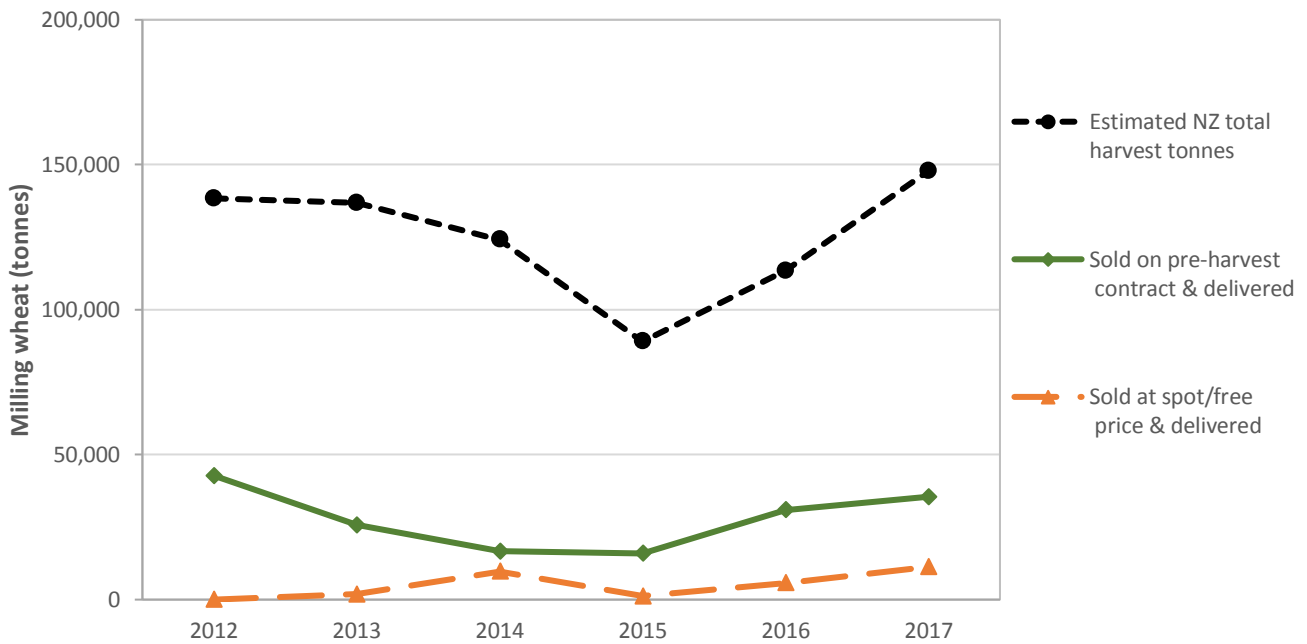
**Feed wheat:** Estimated final total tonnage (373,200 t) was up 9% compared to last year's harvest. Of this total, 83% has been sold (309,600 t), with 53% of the sold grain still stored on farm. The amount of unsold grain is 63,600 tonnes (17%), which is less than at the same time last year, 1 July 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.

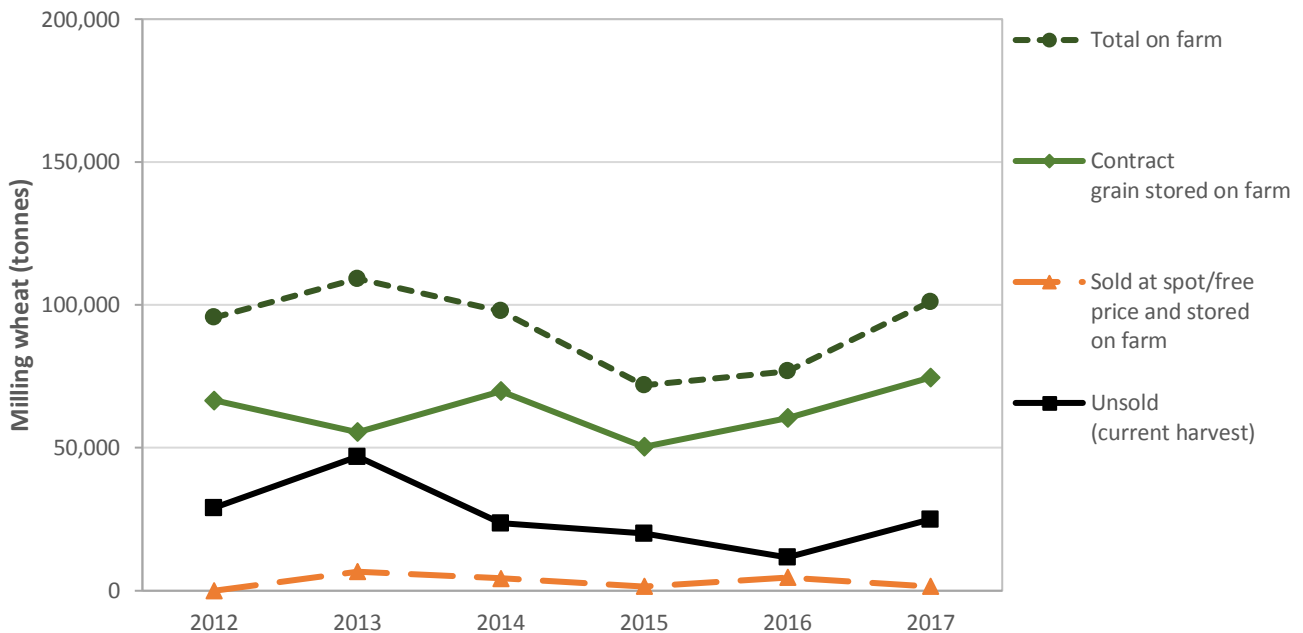
**For other cereals:** Compared to last year, estimated final total tonnage for malting barley (87,100 t) was down by 1%, milling oats (39,400 t) was up by 67%, and feed oats (18,500 t) was down by 20%. Malting barley had 4% of the total harvest unsold (3,400 t) while milling oats and feed oats had 10% (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)

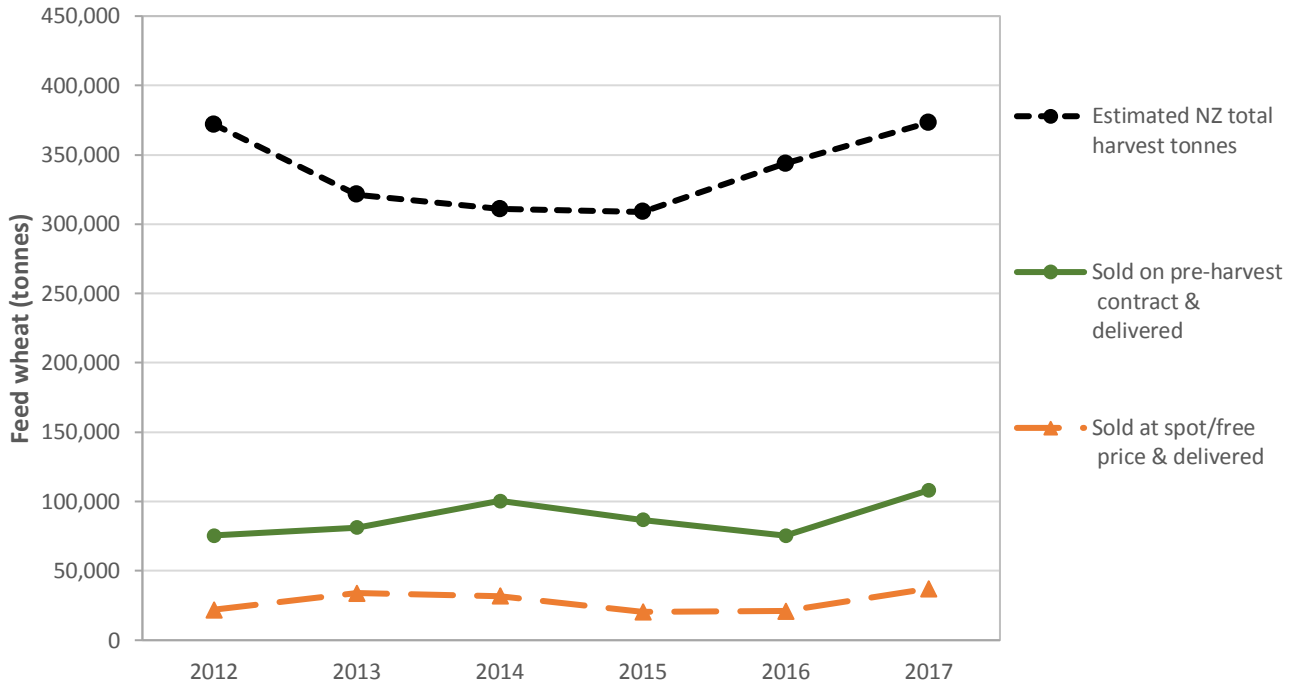


**Figure 1a. NZ harvest tonnage and sales channels for Milling wheat (tonnes) as estimated on July 1 each year.** (Note: All categories relate to that season’s harvest, excluding carryover stock. “Sold at spot/free price and delivered” includes grain sold for feed. Historical data are sourced from previous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



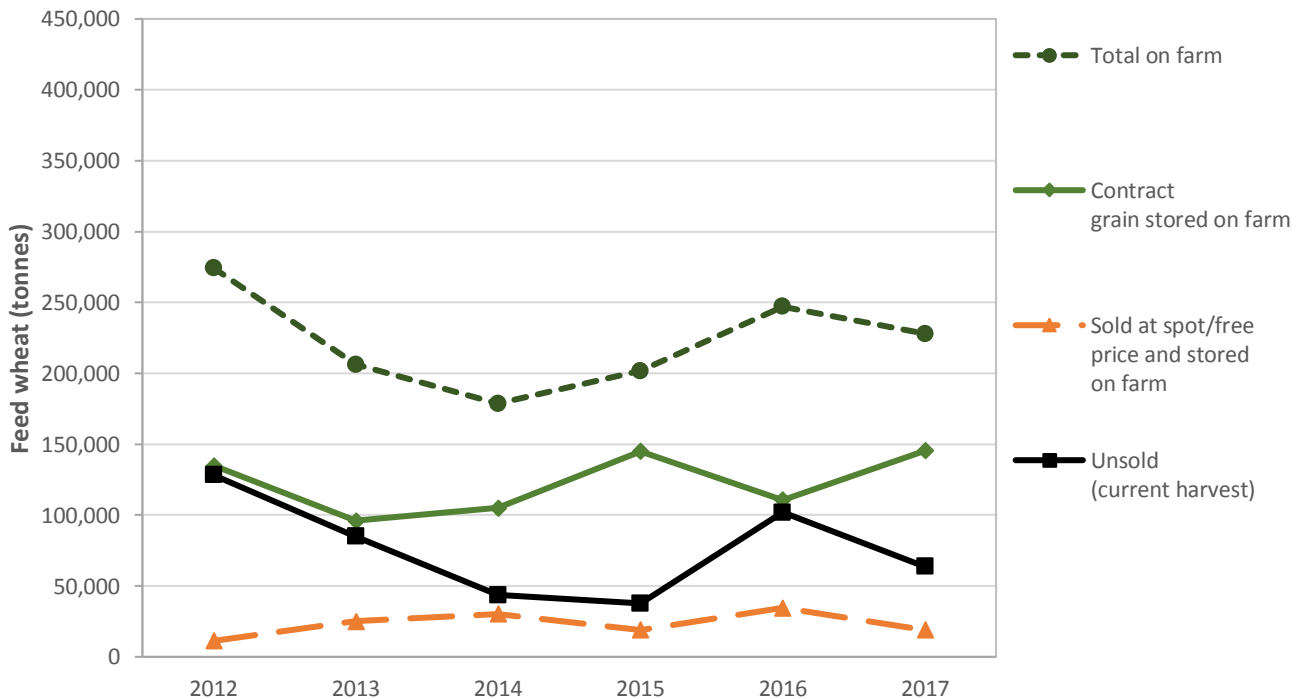
**Figure 1b. NZ stocks on farm for Milling wheat (tonnes) as estimated on July 1 each year.** (Note: Carryover stock from the previous season is excluded. Historical data are sourced from previous AIMI July Reports. In 2012 “Sold at spot/free price and stored on farm” was zero since the question was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

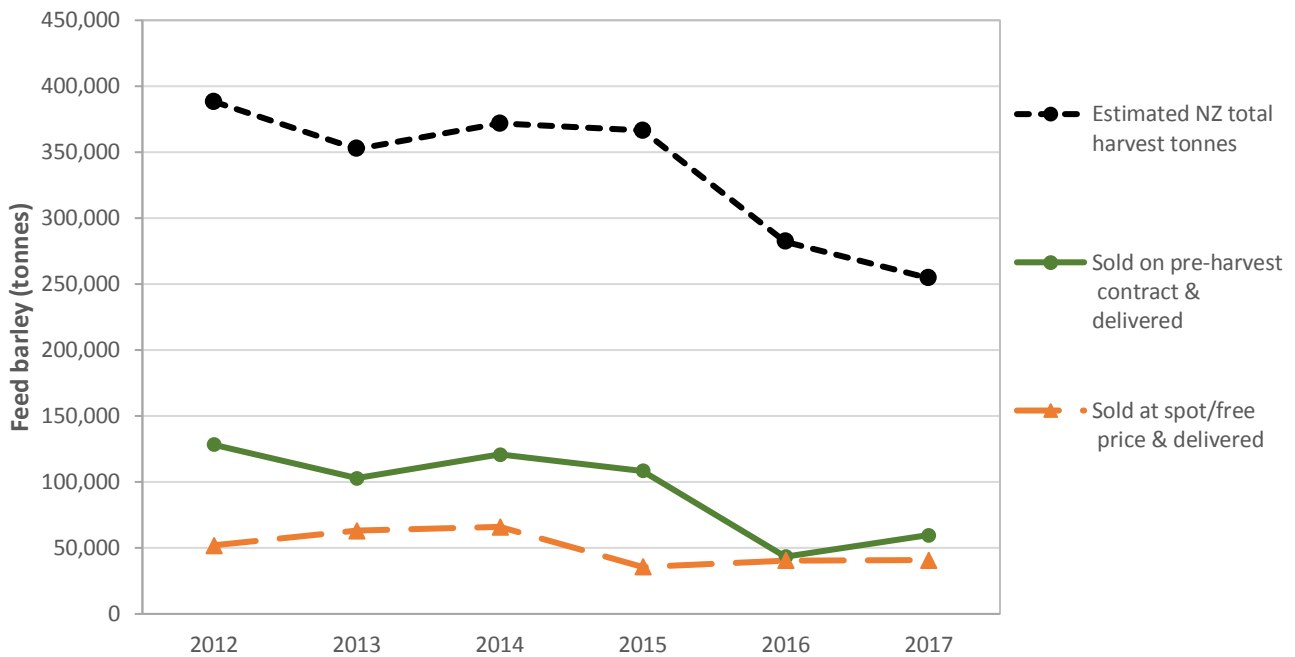
(Note: All categories relate to that season’s harvest, excluding carryover stock. “Sold at spot/free price and delivered” includes grain used on own farm. Historical data are sourced from previous AIMI July Reports.)



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

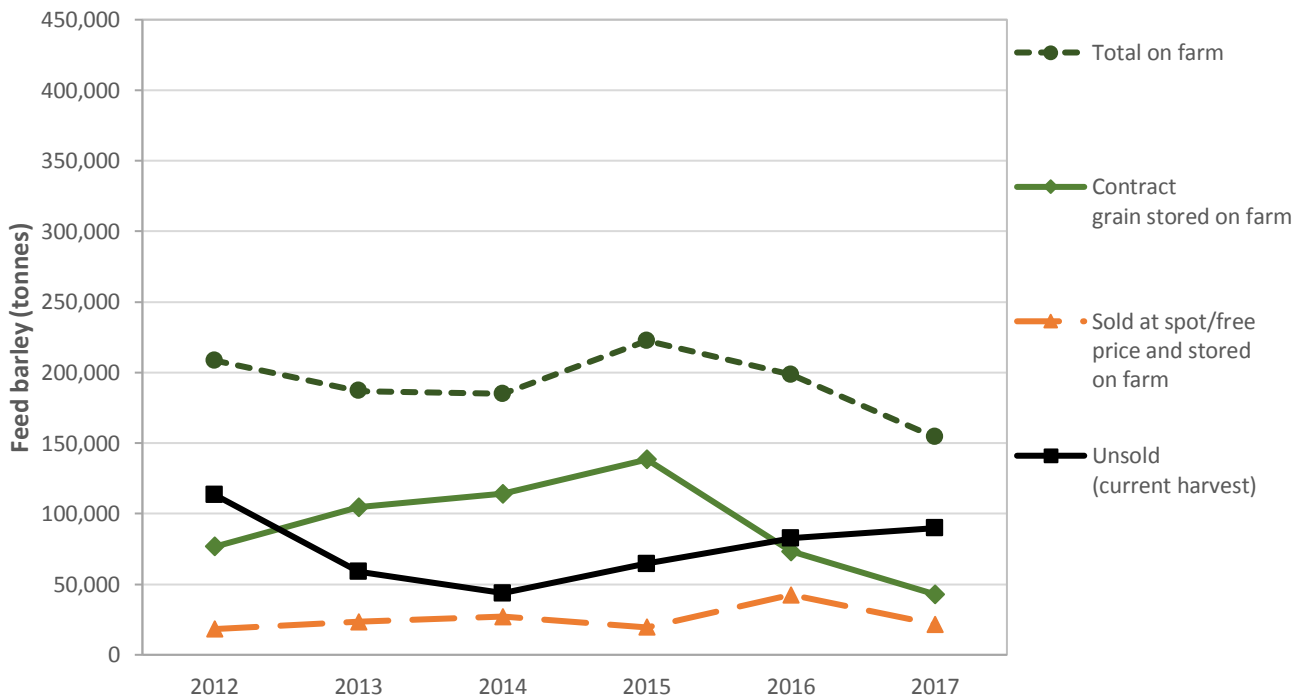
(Note: Carryover stock from the previous season is excluded. Historical data are sourced from previous AIMI July Reports.)

### Feed Barley (Tonnes)



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

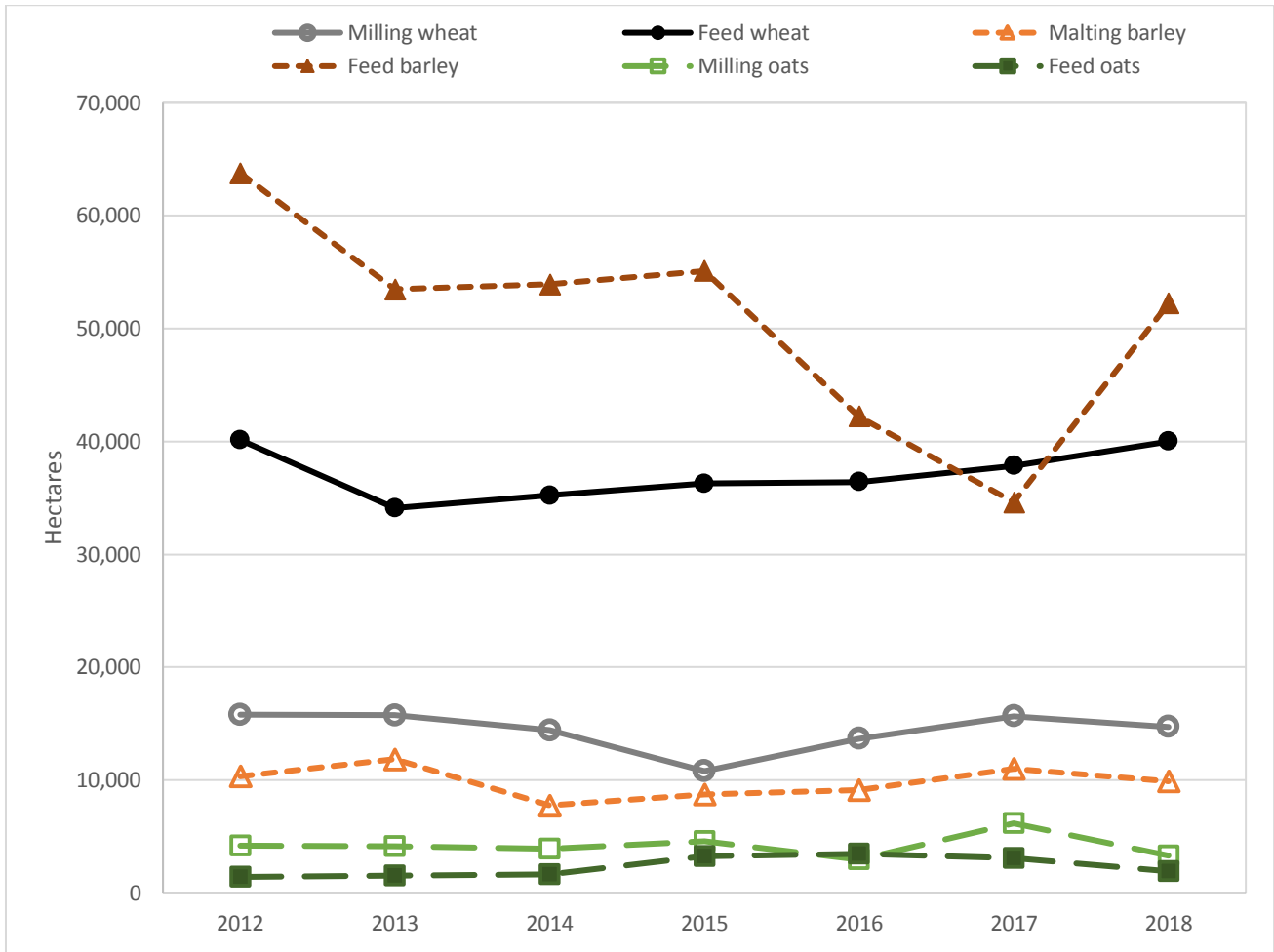
(Note: All categories relate to that season’s harvest, excluding carryover stock. “Sold at spot/free price and delivered” includes grain used on own farm. Historical data are sourced from previous AIMI July Reports.)



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

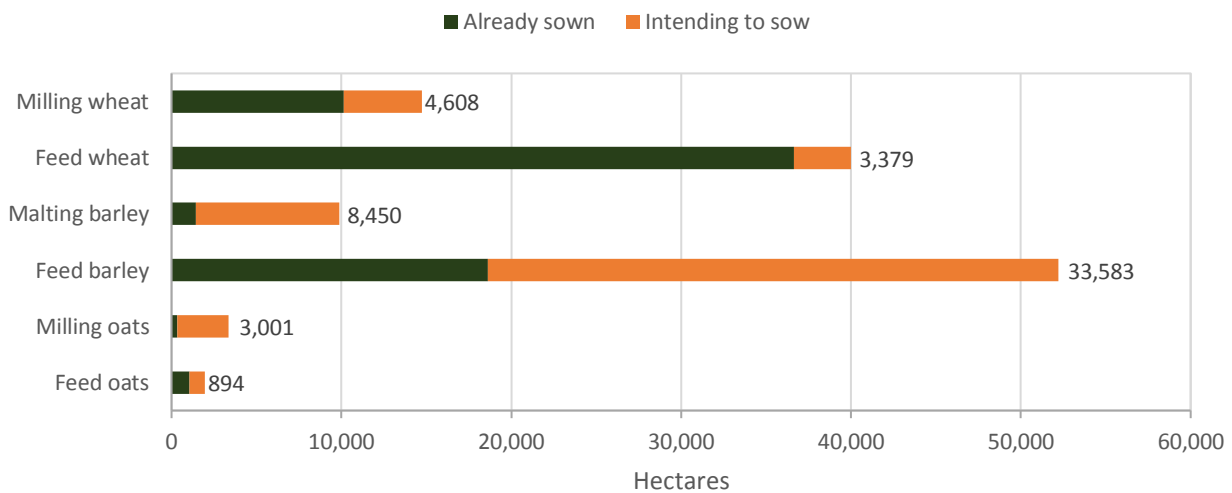
(Note: Carryover stock from the previous season is excluded. Historical data are sourced from previous AIMI July Reports.)

**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.**

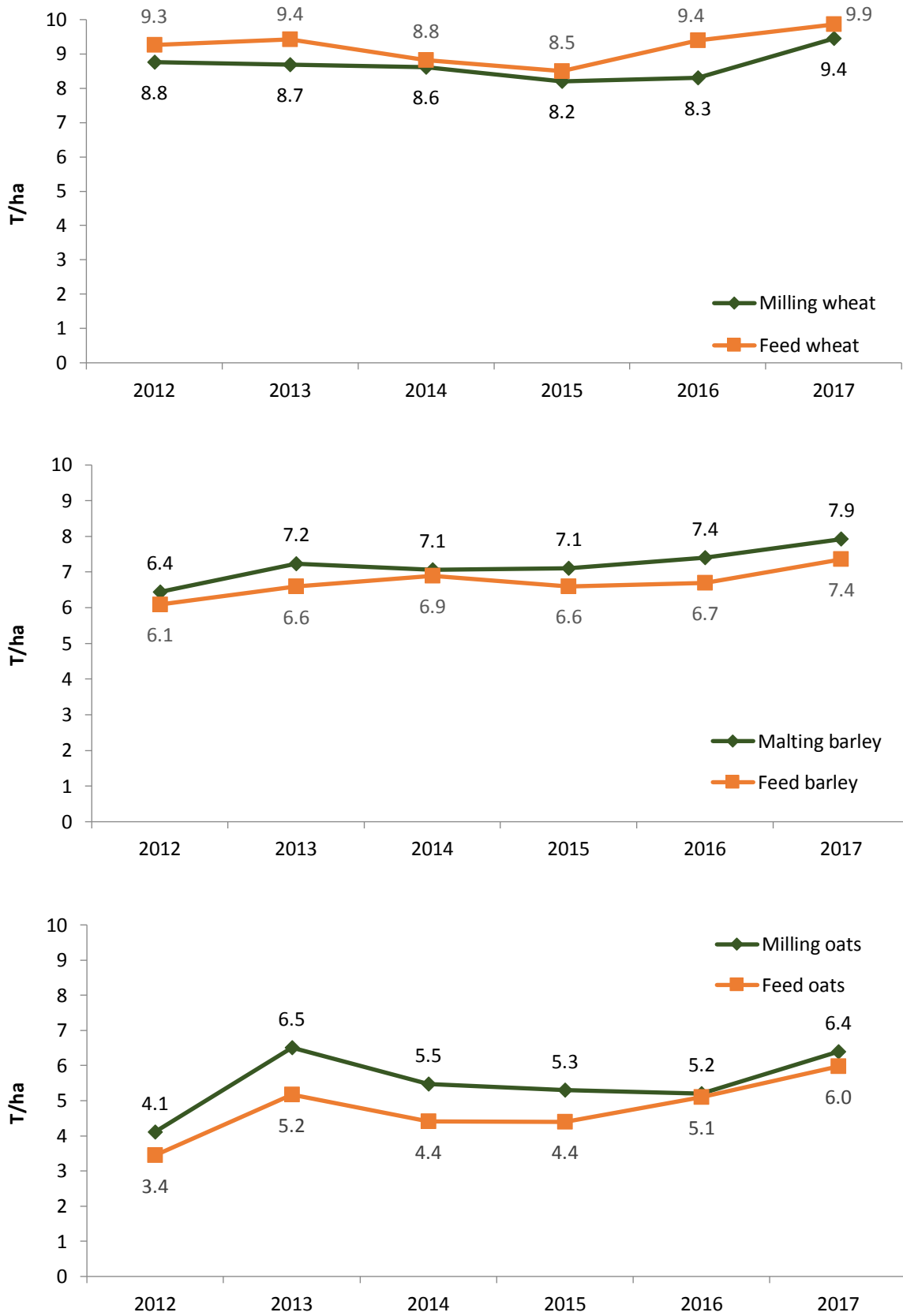
(Note: Figures for 2017 and 2018 (predicted) are from the current report and are a matched comparison (scaled up from a common set of growers), while other figures are from previous AIMI July reports.)



**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 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|---------------|------------|----------------|-------------|--------------|-----------|
| <b>Number of farmers in the survey who harvested this crop in 2017</b>                                                                                                  |        | 45            | 68         | 23             | 76          | 11           | 21        |
| <b>2016 harvest</b>                                                                                                                                                     |        |               |            |                |             |              |           |
| 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    |
| <b>2017 harvest</b>                                                                                                                                                     |        |               |            |                |             |              |           |
| 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     |
| <b>Sales channels (2017 harvest)</b>                                                                                                                                    |        |               |            |                |             |              |           |
| "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     |
| <b>Delivery status of sold grain (2017 harvest)</b>                                                                                                                     |        |               |            |                |             |              |           |
| 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     |
| <b>Total sales (2017 harvest)</b>                                                                                                                                       |        |               |            |                |             |              |           |
| 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     |
| <b>Comparison of hectares and tonnages between last two harvests</b>                                                                                                    |        |               |            |                |             |              |           |
| 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%      |
| <b>Comparison of yields (t/ha) between last two harvests</b>                                                                                                            |        |               |            |                |             |              |           |
| 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       |
| <b>Comparison of Unsold grain as at July 1, 2017, with Unsold grain as at April 1, 2017</b>                                                                             |        |               |            |                |             |              |           |
| 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).                            |        |               |            |                |             |              |           |
| <b>Comparison of Unsold grain as at July 1, 2017, with Unsold grain at the same date last year (July 1, 2016)</b>                                                       |        |               |            |                |             |              |           |
| 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<br>(ha) | Feed wheat<br>(ha) | Malting barley<br>(ha) | Feed barley<br>(ha) | Milling oats<br>(ha) | Feed oats<br>(ha) |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|--------------------|------------------------|---------------------|----------------------|-------------------|
| <b>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</b>                                   | <b>40</b>             | <b>68</b>          | <b>22</b>              | <b>80</b>           | <b>9</b>             | <b>16</b>         |
| 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             |
| <b>Comparison of hectares between 2016, 2017 and 2018 (predicted) harvests</b>                                                                                             |                       |                    |                        |                     |                      |                   |
| 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%              |
| <b>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)</b> |                       |                    |                        |                     |                      |                   |
| 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%              |
| <b>Note:</b> 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.

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