

## WINTER FORAGE MARKET PRICE DISCOVERY



January 2023

Saskatchewan Forage Council

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This document details the current market prices and general trends for forage products in Saskatchewan and nearby jurisdictions as of January 11, 2023. Information was obtained through a variety of sources and methods, including personal and telephone interviews, electronic correspondence and surveys, social media and advertisements found online. The goal of this report is to provide an accurate assessment of forage prices across the province at this point in time. All data collected is as current and credible as possible, and carefully analyzed to determine its relevancy. The Saskatchewan forage council, including the author of this report, has made every effort to ensure the accuracy of the data reported, however, it does not guarantee and accepts no legal liability arising from or connected to the accuracy, reliability or completeness of any material contained in this document.

# winter forage market price discovery

## SASKATCHEWAN FORAGE COUNCIL

### 1. 2022 Production Season in Review

In general, growing conditions were much more favourable in 2022 than in 2021, with the notable exception of the south-west and west-central regions of the province where persistent drought challenges were made worse by infestations of grasshoppers and gophers. Provincial hay yields were greatly improved year-over-year across much of the province as increased precipitation allowed for good early growth and rapid regrowth throughout the growing season. Average dry land hay yields for the province were reported at 1.4 tons/acre for alfalfa, 1.4 tons per acre for alfalfa/brome, 1.1 tons per acre for other tame hay, 1.0 for wild hay and 2 tons per acre for greenfeed. Estimates on irrigated were 2.0 tons per acre for alfalfa, 2.0 tons per acre for alfalfa/brome, 1.5 tons per acre for other tame hay and 3.0 tons per acre for greenfeed. Most of the hay going into winter was rated as fair to excellent, with just one per cent rated as poor.

Improved hay yields are good news for winter feed supplies for livestock producers, who struggled to ensure those resources last winter. Northern and eastern regions report surplus to adequate inventories of hay, straw, greenfeed and feed grain. However, producers in the south-west and west-central have reported insufficient supply to replenish their feed stocks and many are sourcing feed from other parts of the province, as well as Alberta and Manitoba. Some producers, faced with depleted inventories and high costs to replenish them, have reduced their herd numbers.

After a promising early start, moisture conditions continue to be a concern for large areas of the province. Many of those regions that started the production season with early and timely rains that continued through June, saw little rainfall throughout the summer and fall and will need significant precipitation to replenish moisture levels and quality water sources. Heading into winter, hay and pasture land topsoil moisture was rated at 16 per cent adequate, 37 per cent short and 47 per cent very short.

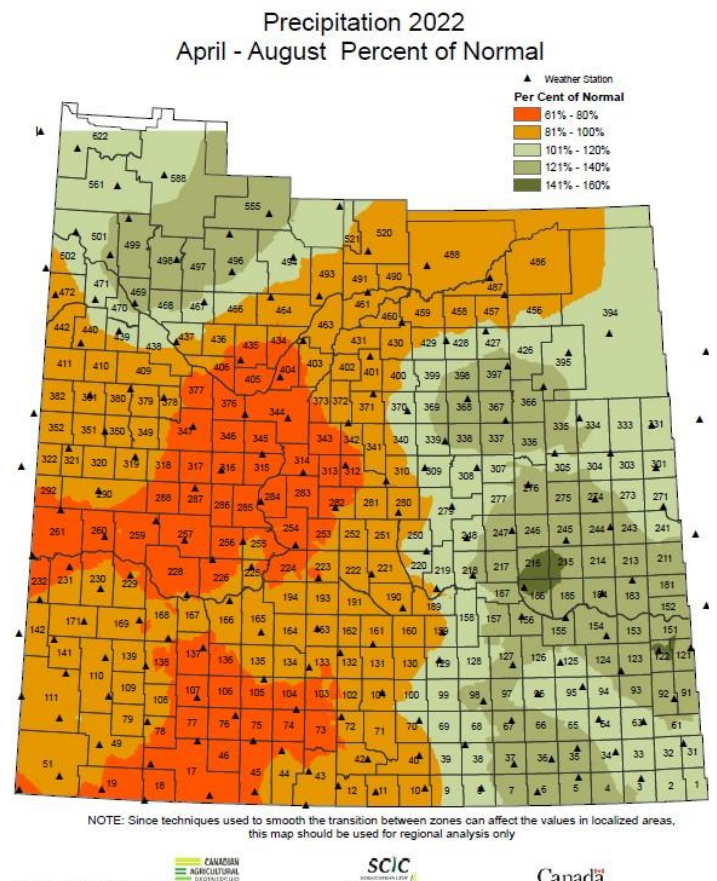
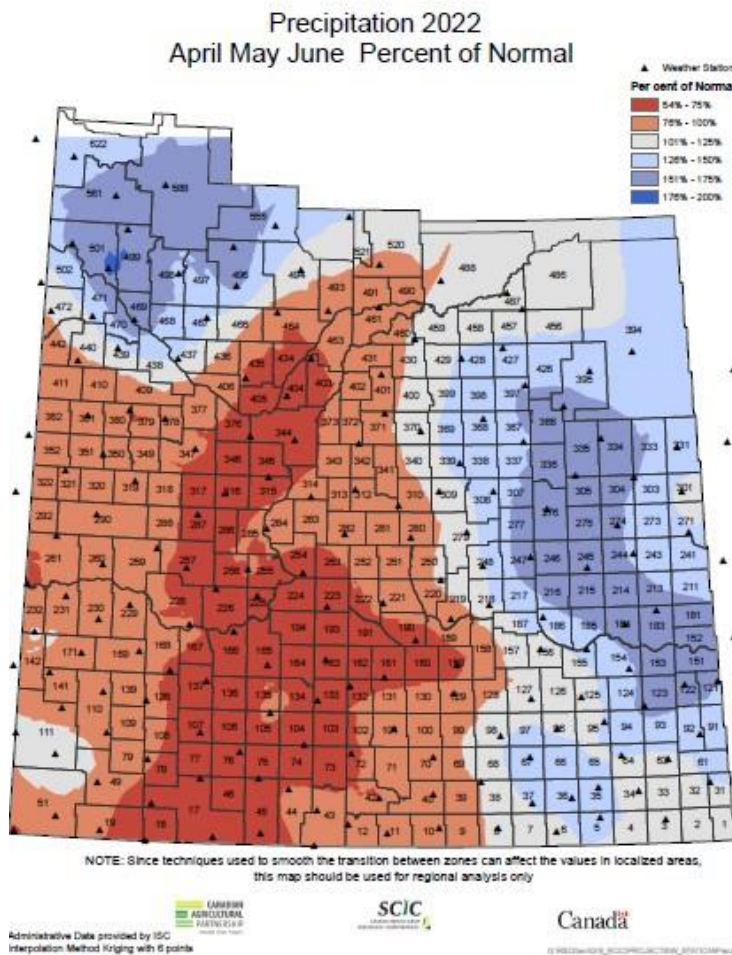
**Table 1. 2022 Saskatchewan Dry Land Hay Yield Reported (tons/acre)**

Region	Date	Estimated 2022 Dry Land Hay Yield (tons/acre)			
		Alfalfa	Alfalfa/Grass	Other Tame Hay	Greenfeed
Southeast	Oct 17	2.0	2.0	1.75	3.0
Southwest	Oct 17	0.7	0.6	0.7	1.3
East Central	Oct 17	1.5	1.7	1.3	2.1
West Central	Oct 17	0.8	0.9	0.7	1.3
Northeastern	Oct 17	2.0	1.8	1.5	3.5
Northwestern	Oct 17	1.4	1.5	1.0	2.0
<b>Provincial AVERAGE</b>	<b>Oct 17</b>	<b>1.4</b>	<b>1.4</b>	<b>1.1</b>	<b>2.0</b>

Data source: Saskatchewan Ministry of Agriculture Crop Report, October 17, 2022<sup>1</sup>.

**Figure 1a./1b. 2022 Precipitation Maps**  
(Source: SCIC)

The production season can be summed up quite easily with an old adage: rain makes grain. It also grows hay, rejuvenates pasture land and fills and freshens vital livestock watering sources. These two maps provide a snapshot of the rainfall, and the subsequent production success and failure, across this province in 2022. These two maps clearly illustrate a moisture deficiency in the south-west and west-central.



**Per cent of Normal**

- 54% - 75%
- 76% - 100%
- 101% - 125%
- 126% - 150%
- 151% - 175%
- 176% - 200%

**Per Cent of Normal**

- 61% - 80%
- 81% - 100%
- 101% - 120%
- 121% - 140%
- 141% - 160%

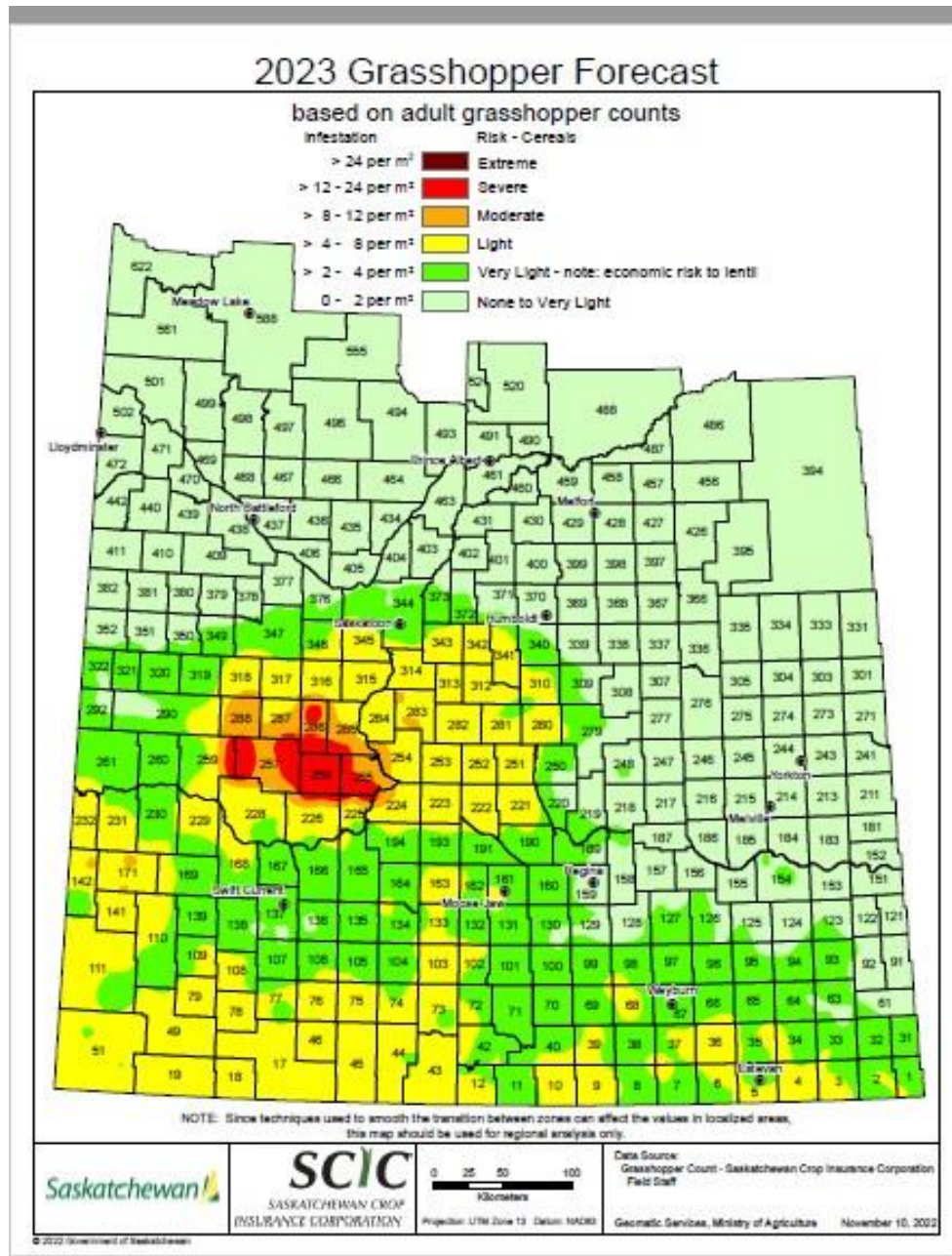


## 2. Field Pest Impact and Projections for 2023 Growing Season

Large areas of the south-west region were devastated by grasshopper and gopher infestations, adding to the challenges of prolonged drought. Grasshoppers continued up through the west-central region, and both regions will be hoping for some relief from the pests in 2023. There were some reports of flea beetle damage in these regions as well, but few other reports of hay and pasture land-threatening field pest challenges across the province in the 2022 season.

**Figure 2. 2023 Saskatchewan Grasshopper Forecast**

(Source: Saskatchewan Ministry of Agriculture, 2023<sup>2</sup>)



The survey and forecast map are intended to provide general information on risk levels. The actual severity of grasshopper infestations may differ from the 2023 forecast map, depending on weather conditions in the spring. Hot and dry conditions favour growth and development of several grasshopper species.

### 3. Regional Forage Conditions in Saskatchewan

#### **a) South-Western Saskatchewan**

The south-west region experienced another very dry year with some extreme heat during the growing season, and the added challenge of grasshopper and gopher infestations. Drought conditions persist in this region, resulting in very poor crops and pasture condition across most of the region. Some producers got small, but timely rains which allowed for slightly better results than in 2021, overall, the 2022 growing season was one of disappointment and challenge.

Crop, hay and pasture land have all been depleted of soil moisture, creating more anxiety for the coming spring as many water sources are dangerously low or dry, with water quality suffering. Hay and pasture land topsoil moisture was rated at 22 per cent short and 78 per cent very short in the final crop report of the season (October 17, 2022).

It was another year of very poor hay yields, resulting in a further reduction in feed stockpiles and forcing many to reduce herd numbers. Average dry land hay yields were reported (in tons/acre) as 0.7 on alfalfa, 0.6 for alfalfa/brome, 0.7 for other tame hay and 1.3 for greenfeed.

While there is more hay available for sale throughout the rest of the province this year and lots of hay has moved into this region, economics will dictate just how long this situation can sustain. Most producers reported just enough feed to get them through a normal length winter, with little to no excess in the event of a late spring. December snowstorms and extreme cold in many areas have already created a need for more feed than was budgeted for. While the snow is welcome for moisture, it has put an early burden on feed supplies. Feed testing results from the fall indicate many issues to address in terms of nitrates, low energy values and other quality challenges. Screenings, pellets, wheat midds, cereal grains, molasses, lick tubs, kochia, slough hay are all being used to supplement feed supplies.

Some livestock producers were able to salvage poor-quality grain crops for greenfeed. The water supply concern had many producers hauling water all season to ensure safe and adequate water.

#### **b) South-Eastern Saskatchewan**

Overall, it was a good year in the south-east, with good precipitation and no long periods of extreme heat. Early rain delayed seeding and caused concerns about harvest timing, but drier fall conditions allowed producers to get things back on schedule.

Hay yields improved greatly this year, with an early start on growth and timely rains throughout June. Average dry land hay yields in this region were reported (in tons/acre) at 2.0 for alfalfa, 2.1 for alfalfa/brome, 1.75 on other tame hay and 3.0 on greenfeed. This has allowed producers to replenish depleted feed inventories and most report surplus to adequate hay, straw, greenfeed and feed grain for the winter. It's being reported that a lot of feed is moving out of this region to the south-west.

Hay and pasture land topsoil moisture was rated (Oct 17/22 Crop Report) at one per cent surplus, 30 per cent adequate, 52 per cent short and 17 per cent very short.

### **c) East-Central Saskatchewan**

It was a good year in east-central, overall. A very late, wet spring delayed seeding activities and caused some concern, but a dry and warm fall allowed harvest and other fall jobs to be completed. The large amounts of precipitation did result in much-improved hay yields. Hayland that had been struggling in 2021 was able to recover and perform at normal levels.

With a much better hay crop, producers in this region indicated that they will have adequate to surplus hay, straw, greenfeed and feed grain this winter. Average hay yields on dry land are reported (in tons/acre) at 1.5 for alfalfa, 1.7 for alfalfa/brome, 1.3 for other tame hay and 2.1 for greenfeed. Very few producers are concerned about feed shortages, especially hay and greenfeed. Many with excess inventories have been selling it into areas that didn't fare as well, or saving it for future use.

After large amounts of precipitation across the region through August, soil moisture levels dropped significantly through the fall. Hay and pasture land topsoil moisture was rated (Oct 17/22 Crop Report) at 23 per cent adequate, 41 per cent short and 36 per cent very short.

### **d) West-Central Saskatchewan**

This region didn't fare nearly as well as the east-central region, having struggled through another year of extreme drought and heightened pressure from grasshoppers. With a shortage of feed, producers were forced to turn cattle out earlier than intended, causing further challenges for adequate regrowth when there was insufficient spring moisture. Pastures and hayland are under extreme stress and good sources of quality water for livestock is another big concern.

Moisture is desperately needed for pasture regrowth and rejuvenation in the spring, or many producers will not be able to graze cattle on the majority of their land. Hay and pasture land topsoil moisture was rated (Oct 17/22 Crop Report) at nine per cent adequate, 34 per cent short and 57 per cent very short.

It was another bad year for hay yields. Average hay yields on dry land are reported (in tons/acre) as .80 for alfalfa, 0.9 for alfalfa/brome, 0.7 for other tame hay and 1.3 for greenfeed. Yields fell far short of what was needed to replenish depleted feed supplies for most producers and there is little local feed available for purchase.

### **e) North-east Saskatchewan**

It was a good year in the north-east, as a result of early and timely rains that drove high crop yields of high quality. Hay yields improved greatly this season and most producers had no worries about having to source off-farm supplies. Average hay yields on dry land are reported (in tons/acre) as 2.0 for alfalfa, 1.8 for alfalfa/brome, 1.5 for other tame hay, 1.3 for wild hay and 3.5 for greenfeed. Most producers have indicated adequate to surplus stocks of hay, straw, greenfeed and grain, with only a few reports of an anticipated slight shortage in feed supplies.

Topsoil moisture conditions in this region haven't reached the desperate levels of other parts of the province, but rain will be needed as the season ended up quite dry. Hay and pasture topsoil moisture was rated (Oct 17/22 Crop Report) at 43 per cent adequate, 43 per cent short and 15 per cent very short.

#### **f) North-west Saskatchewan**

Conditions were also good in the north-west, where early season moisture was followed by timely rains throughout most of the season and a long, open fall made harvest and fall work easy to manage.

The increased precipitation resulted in a good hay crop and extended grazing periods for most producers, relieving the pressure to supplement feed. Average hay yields on dry land are reported (in tons/acre) at 1.4 for alfalfa, 1.5 for alfalfa/brome, 1.0 for other tame hay and 2.0 for greenfeed. As winter approached, most producers indicated adequate to surplus supplies of hay, straw, greenfeed and feed grain.

While rainfall was closer to average across much of the region this year, many areas were very dry by winter. Hay land and pasture topsoil moisture was rated as (Oct 17/22 Crop Report) at ten per cent adequate, 37 per cent short and 53 per cent very short.

## **4. Current Forage Freight Rates in Saskatchewan**

Truckers reported a steep increase in operating costs over the past year which increased freight rates significantly. The cost of diesel continues to be a major factor in both forage production costs and transportation costs. On January 13, 2023, Natural Resources Canada reported average diesel retail pricing to be \$1.80/litre in Regina and \$1.91/litre in Saskatoon (up from \$1.38/litre in Regina and \$1.39/litre in Saskatoon as compared on Dec 31, 2021). Compared to surveys in previous years, more truckers appear to be adding a fuel surcharge. Prices for labour and parts for maintenance and repairs have also increased substantially. At times, parts are difficult to source.

In general, hay bale transporters are reporting steady bookings as of early January 2023. Statistics on the tonnage and hauling distances for hay, greenfeed, straw and other baled forages being transported from year to year are not available. Generally, it is believed the tonnage and hauling distances will be lower in winter 2022-23 compared to winter 2021-22. In 2021-22 there were bookings of 350-600 miles one way.

The most common method of packaging forages for transport is the 5x6 hard core round baler. Most hay bales are in the range of 1400-1700 pounds per bale. None of the truckers changed their rates based on bale weight, so obviously the cost per ton hauled is reduced with greater bale weights.

**Short Haul:** Local hauling (generally 25 miles or less) is often done with self-loading and unloading trucks. These are commonly trucks hauling 14 or 17 bales, and trucks with trailers hauling 28 bales. The range for loading is usually \$4-5 per bale, and the cost for hauling averages 50 cents/bale/mile.

**Long Haul:** Most of the truckers surveyed have trailers that carry 34 bales. Two had Super B's able to haul 40 bales, and one could haul 48 bales. Most charged on a loaded mile basis. Their rates varied widely from \$5.50-13 per loaded mile, with most in the range of \$9-11 per loaded mile. Loads carrying 40 and 48 bales tended to be at the higher rates. Based on cost/bale/mile, the range was relatively wide at 16-35 cents/bale/mile. Most of the truckers were in the range of 25-32 cents/bale/mile. The higher rates tended to be for shorter hauls to compensate for loading and unloading time.



Some of the individual haulers had variable rates based on:

- length of haul
- delays during loading and unloading
- dead head distances to the bales and back from their destination
- whether or not the trucker supplied the loading equipment

When hauling distances were less than 100 miles, some transporters had a flat rate per load and others charged on an hourly basis. Pending the trucker and circumstances, the clock would start either when they left their headquarters or when they arrived at the bales. The clock would end either when the bales were unloaded or when they arrived back at their headquarters. Rates were in the range of \$120-175 per hour.

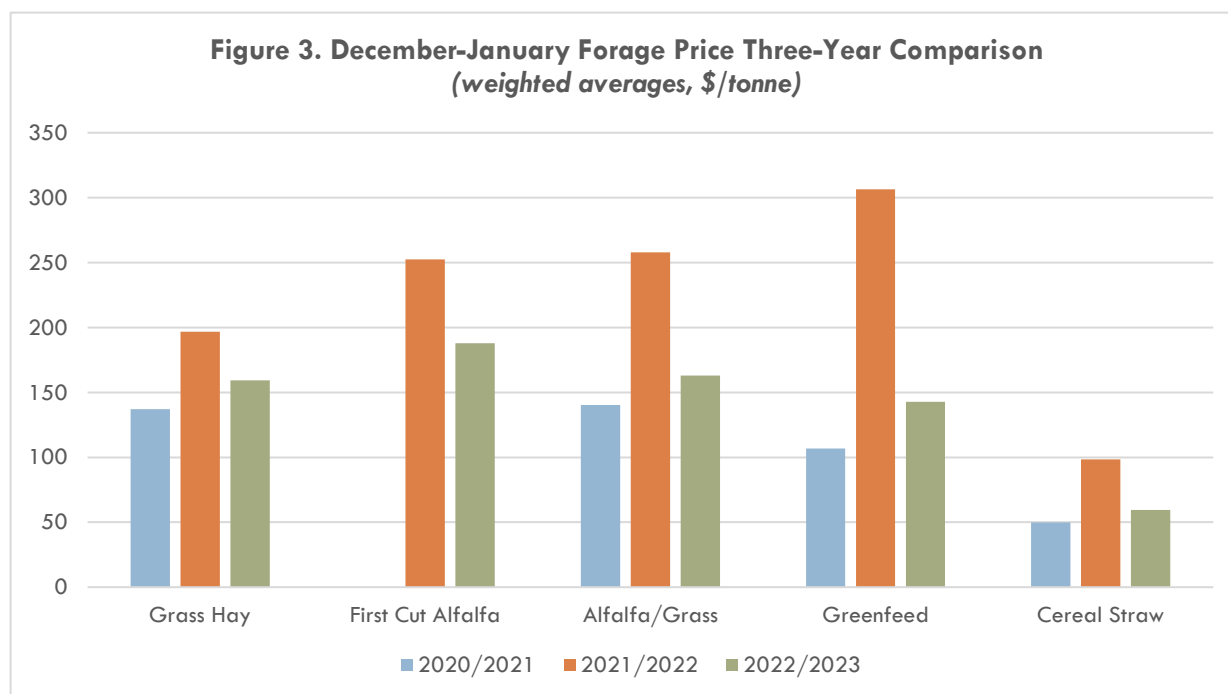
## 5. Current & Projected Saskatchewan Forage Prices for 2022/2023

Forage prices were obtained throughout the fall of 2022; up to and including January 11th, 2023. Prices were assembled from listings, personal phone calls to producers, livestock nutritionists, feedlots, hay growers, and transporters.

Average prices reported in Table 2a. and 2b. are those *collected from December 1<sup>st</sup>, 2022 to January 11<sup>th</sup> 2023.*

**Table 2a. Average Asking Forage Prices in Saskatchewan as at January 11, 2023**

Forage Type	Simple Average Price (\$/Tonne)	Weighted Average Price (\$/Tonne)	High (\$/Tonne)	Low (\$/Tonne)	# of Trades Simple/Weighted	Weighted Average Price January 2022*	Weighted Average Price January 2021
Grass Hay	\$150.68	\$159.40	\$220.46	\$88.18	10/8	\$196.83	\$137.19
First Cut Alfalfa	\$168.15	\$187.81	\$264.55	\$78.74	7/6	\$252.54	n/a
Second Cut Alfalfa	\$140.55	n/a	\$155.14	\$125.98	2/0	\$323.14	n/a
Alfalfa/Grass Mix	\$161.75	\$162.94	\$308.64	\$110.23	34/24	\$257.76	\$140.42
Greenfeed	\$139.92	\$142.67	\$190.05	\$110.23	10/10	\$306.35	\$106.74
Clover	\$119.78	\$119.93	\$128.60	\$106.43	4/3	n/a	n/a
Cereal Straw	\$70.55	\$59.43	\$110.23	\$55.12	14/7	\$98.53	\$49.82
Pulse Straw	\$125.66	n/a	\$125.66	\$125.66	1/0	\$92.76	n/a



**Table 2b. Average Fall Long (Aug-Jan) Forage Prices in Saskatchewan**

<b>Forage Type</b>	<b>Simple Average Price (\$/Tonne)</b>	<b>Weighted Average Price (\$/Tonne)</b>
<b>Grass Hay</b>	\$161.49	\$154.27
<b>First Cut Alfalfa</b>	\$174.08	\$183.66
<b>Second Cut Alfalfa</b>	\$214.89	\$182.10
<b>Alfalfa/Grass Mix</b>	\$166.78	\$168.84
<b>Greenfeed</b>	\$151.72	\$152.53
<b>Clover</b>	\$133.95	\$136.33
<b>Cereal Straw</b>	\$83.04	\$80.76
<b>Pulse Straw</b>	\$107.93	\$116.15
<b>Organic Hay</b>	\$152.87	\$162.47

**Baled Perennial Forage Prices: verified sales Winter 2022-23**

The most common forage traded is baled perennial hay, and the majority is a combination of alfalfa and grass. For each sale verified, no attempt was made to differentiate between percentages of alfalfa and grass as these are estimates that may or may not be accurate. Most of the prices below were obtained directly from 31 individuals who were either the buyer or seller of an actual trade. Some prices were obtained from individuals who were considered a reliable source of price information.

There is a relatively strong correlation between baled perennial forage prices and location in the province. The Saskatchewan Crop Insurance Corporation (SCIC) generated maps showing percent of normal precipitation for both April-June and April-August (see page 4). The maps show the west side of the province was generally below average rainfall for both time periods, and the east side was generally average or above average rainfall. Therefore, much of the hay being sold was grown in the east and trucked to the west. The cost of trucking to the west reflects in large part the price differences at the seller's location.

Closer to the eastern border of the province, alfalfa/grass hay bales were selling in the range of 5-7 cents per pound (\$110-154/tonne). Moving west to the edge of the normal precipitation area, prices tended to increase in the range of 7-10 cents per pound (\$154-220/tonne). One price of 10 cents per pound was a sale of 100 percent alfalfa.

One source indicated private sale prices of hay inside the dry west side of the province were 13-15 cents per pound (\$287-331/tonne) in December 2022. The heavier bales tended to get the higher prices, which reduced the cost per pound for hauling.

In early January 2023 there were two hay auctions on the west side of the province with below average rainfall in 2022. One hay auction at Mossbank had prices at 14-16 cents per pound (\$309-

353/tonne). The other hay auction at Bateman had a range of 12.8-14.2 cents per pound (\$282-318/tonne) for hay baled in 2021, and 13.4-16.5 cents per pound (\$295-364) for hay baled in 2022. Slough hay sold for 11.5 cents per pound (\$254/tonne) and straw bales sold for 7.8 cents per pound (\$172/tonne).

There were limited sales found for standing perennial forage. In the normal and above normal rainfall area of the province, the price range was 1-2.5 cents per pound (\$22-55/tonne). In the below rainfall area, prices were much higher at 6-8 cents per pound (\$132-176/tonne). Some non-profit conservation groups sold standing forage on a per acre basis. No attempt was made to measure or record the yield. Prices ranged from \$8-35 per acre.

The following is an example calculation of a cost for buying and trucking hay.

Assume 1600 lb bales are purchased at 8 cents per pound, and they are being trucked 250 miles with a truck hauling 34 bales at \$10 per loaded mile. The cost of trucking will be 4.6 cents per pound (250 miles x \$10/mile) ÷ (34 bales x 1600 lb/bale) = 4.6 cents per pound. Total cost of the hay delivered will be 12.6 cents per pound (\$278/tonne).

**Silage:** Eleven feedlots were contacted for silage yields and prices in the pit. Two feedlots in the west side of Saskatchewan with below average precipitation had yields from 2-3.8 wet tonnes/acre. The silage was valued at \$95-120/wet tonne in the pit. The other feedlots were in the eastern side of Saskatchewan with average to above average precipitation. Silage yields were in the range of 6-9.4 wet tonnes/acre. One had dryland corn at 11 wet tonnes/acre, and one had irrigated barley silage at 17.5 wet tonnes/acre. Value of the silage in the pit was in the range of \$73-105/wet tonne. Feedlots buying straw were paying 2.5 to 4 cents per pound (\$55-88/tonne) baled in the field. Trucking to the feedlot was an additional cost. Cereal silage bale asking prices ranged from \$118-154/tonne in Saskatchewan during this period. These bales were either oat or barley silage bales or mixed annual crops such as barley, oats and peas. Alfalfa silage bales for sale were not found in Saskatchewan, but asking prices ranged from \$75-190/tonne in Manitoba.

### **Small Square Bales**

The price for small square bales reported is based on listings from December 1, 2022 to January 11, 2023. There were not a lot of small square bales on offer during this period and quality appears to be variable. Average asking prices for alfalfa/grass hay were \$7.64/bale this winter compared to \$7.13/bale in the winter of 2021/2022. Straw prices were slightly lower this winter at \$4.53/bale average compared to \$4.65/bale in the previous year. Similar to large square and round bales, small square bale asking prices are slightly higher in Alberta than in Saskatchewan and are slightly lower in Manitoba.





Assuming an average square bale weight of 65lb/bale, average small square alfalfa and alfalfa/grass hay is priced at \$339.17/tonne and \$259.13/tonne respectively. These prices reflect the convenience of using small square bales for those without the equipment to move large bales, and for those needing smaller quantities of feed. Particularly in Alberta, more advertisements are now offering Bale Baron packs of bales. These twine-wrapped packages of small bales include between nine and 21 small square bales that can fit in the box of truck or trailer, targeting equine and acreage owners.

**Table 3. Square Bale Asking Prices Saskatchewan  
December 1, 2022 through January 13, 2023**

Forage Type	Average Price (\$/bale)	Range (\$/bale)
Alfalfa	\$9.67	\$8.00-\$10.00
Alfalfa/Grass	\$7.13	\$4.00- \$10.00
Grass	\$7.38	\$5.00 - \$10.00
Greenfeed	\$9.00	\$8.00-\$10.00
Straw	\$4.65	\$2.00 - \$10.00

#### **Dehydrated Alfalfa**

Overseas markets for alfalfa remain strong, so there is very little product traded in this country. With most reports indicating alfalfa acres declining globally, world prices are anticipated to remain strong.

**Table 4. Average Saskatchewan Processed Alfalfa Product Prices for 2022-2023**

Product Type	Price (\$/Tonne)
Dehydrated Alfalfa Pellet (16-17% Crude Protein)	\$420 - 440
Sun cured Alfalfa Pellets (15% Crude Protein)	\$400 avg
Organic Sun cured Alfalfa	not priced in 2022

## **6. Additional 2023 Provincial Forage Market Considerations**

**Table 5. Saskatchewan Beef Cows and Replacement Bred Heifers on-farm as at July 1, 2022.**

	Beef Cows (Sask)	Replacement Bred Heifers (Sask)
<b>2020</b>	979,400	163,000
<b>2021</b>	983,100	159,000
<b>2022</b>	927,300	149,000

Statistics Canada, Saskatchewan

It is difficult to determine whether the decline in cows and replacement heifers occurred more on the west side of the province where moisture was more limited in 2021 and 2022. It is also difficult to determine if the decline is directly related to lack of grazing and high feed prices, or for many other reasons including general reduced profitability due to all increased production costs.

The dairy sector is also impacted by feed availability that's tight on the forage side. In some areas of the province farms have been able to replenish their homegrown supplies to manageable levels. There are other areas that are completely decimated as they got no relief from the prior drought years, and it seems rainfall was completely hit or miss across the province. Forage cost has strengthened slightly over the previous year.

Alfalfa production numbers are interesting, following Statistics Canada's Census of Agriculture data (2011, 2021) which reports that alfalfa acres have dropped approximately 33 per cent in 10 years. That reports states that in 2011 some 75,000 producers were growing alfalfa, with reported acreages of 11.2 million; compared to 51,000 producers in 2021, with reported alfalfa acres of 7.5 million acres. Alfalfa continues to be regarded by many as an economical crop with vital nutritional value, but more dairy farmers are now feeding corn because of the high tonnage per acre potential that can free up land to plant higher-value field crops. There is a conviction that alfalfa will continue to be an important part of the nutritional mix, however, due to its value as a protein source.

Innovative producers continue to look for alternative feeds in the form of screenings or by-products, although because of the increased demand there's recognition in the industry of the value of "secondary" products that can be used as feed and costs inflate accordingly. Most opportunities happen to be regional, based on the type of crop or processing that occurs locally. There is greater emphasis placed on feed processing/preparation on-farm, be it physical or chemical processing, with the primary goal being to ensure animals capture as much as they can of their diets. There's no profit in having animals consume high-priced nutrients and then underutilizing them.

With pastures still in poor condition due to widespread drought producers will need good snow cover, spring run-off and spring rains in order for pasture growth to get ahead of livestock and for water sources to fill or replenish. If turn-out is prolonged, some areas may run short of feed.

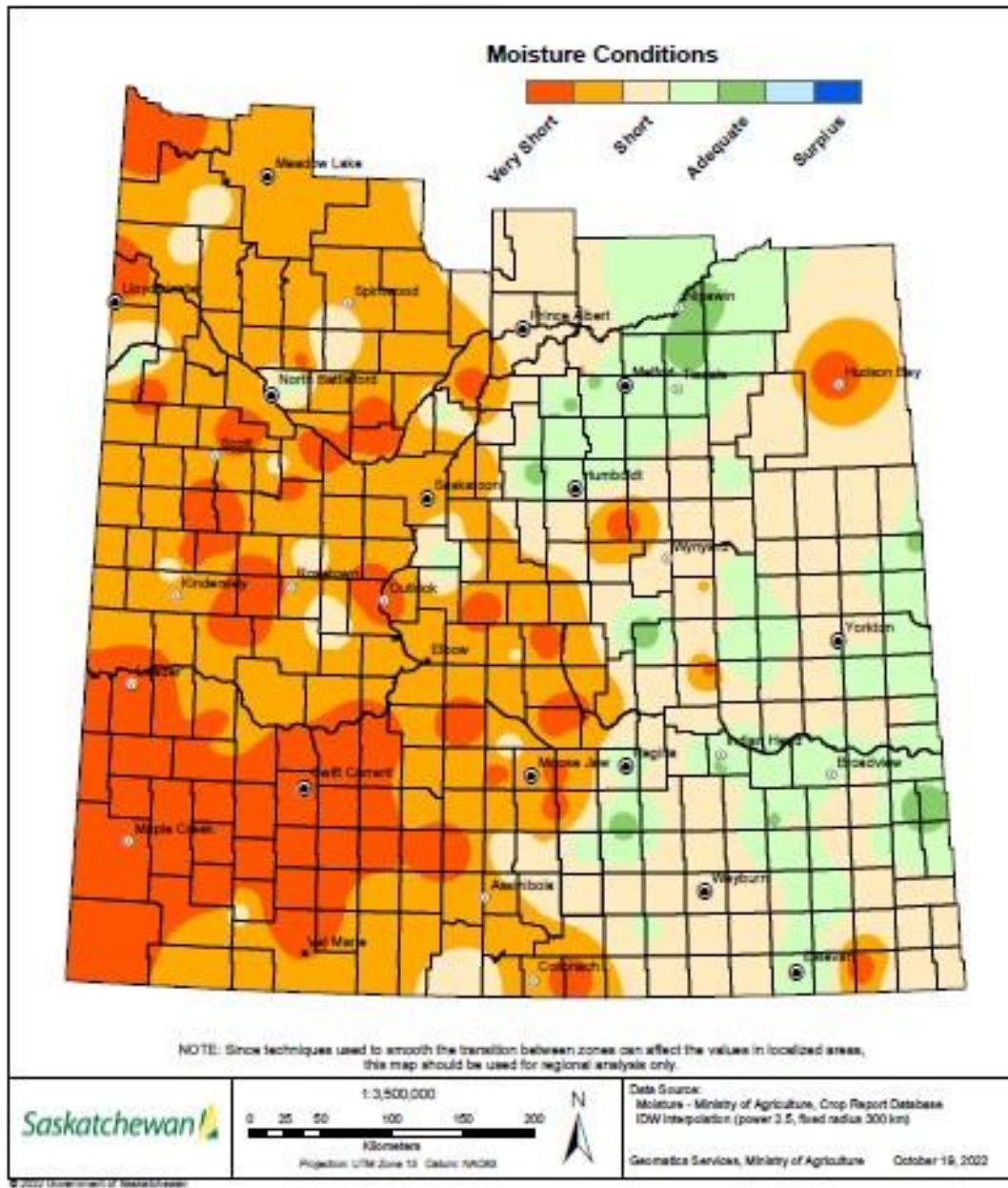
Figure 4 shows cause for concern in general hay and pasture topsoil conditions; similar to last year's report, despite a better start to the growing season.

Interest in seeding new forage stands remains low, as producers wait to see what spring precipitation will be like. Marginal annual cropland seeded to greenfeed continues to fill the perennial forage gap, instead of being seeded to new perennial stands. Even if spring seeding conditions improve in 2023, continued high grain prices could impact those decisions, encouraging producers to seed those marginal annual croplands to higher-value grain crops. There is still concern that some better-quality perennial forage stands could be terminated in order to seed higher-priced field crops.



**Figure 4. Hay and Pasture Topsoil Moisture Conditions Final 2022 Crop Report October 17, 2022**  
 (Source: Saskatchewan Ministry of Agriculture, 2022<sup>3</sup>)

## Hay and Pasture Topsoil Moisture Conditions October 17, 2022



## 7. Current Alternative Feedstuff Prices

The use of silage, straw and planned and unplanned (salvage) greenfeed continues to be well-utilized across the province. These feedstuffs are often paired with feed grain or alternatives to balance livestock rations, and to stretch feed sources through the winter. Quality of forages across the province was generally much higher this year and livestock producers have reported adequate supplies of hay, straw, greenfeed, in most areas. Crop yields on feed grains and barley used in producing many alternatives were much higher this year, making them more accessible and affordable.

Alternate feedstuffs can include:

- pellets made partially from screenings of cereal and pulse crops
- pellets made partially from lower grade cereal and pulse crops
- oat hulls
- canola meal
- dried distiller's grains (DDGs)
- alfalfa pellets
- feed grains

These products are commercially available in Saskatchewan. Most of the plants contacted are in eastern Saskatchewan where there is relatively ample supply of ingredients for processing in 2022-23.

Table 6a lists average prices for a variety of alternative feed sources in Saskatchewan, with percent crude protein (CP%) basis dry matter, total digestible nutrients (TDN%) basis dry matter, on dollars per tonne basis FOB the plant where they were produced and comments.

Table 6b lists grain and grain screening pellets and pricing from a number of suppliers, without an average price, to better illustrate the variability and feed value of pellet production, based on available supply.

**Table 6a. Alternative Feedstuff Prices as at January 11, 2023**

Commodity	Crude Protein (%)	Total Digestible Nutrients (%)	Winter 2022 Price (\$/tonne)	Details	Winter 2022 Price
<b>Canola Meal</b>	37-38	76-87	\$510-525/ tonne		\$450-524/tonne
<b>Alfalfa Pellets</b>	17	62	\$400-440/tonne	Available in limited quantities	\$396/tonne avg
<b>Oat Hulls</b>	16	79	\$15/tonne		\$75/tonne
<b>Dried Distillers Grains (Rye/Wheat)</b>	30-32	75-78	\$400-420/tonne	Sold out at some locations	\$370-385/tonne



**Table 6b. Survey of Grain and Grain Screening Pellet Prices and Details as at January 11, 2023**

Crude Protein (%)	Total Digestible Nutrients (%)	Price (\$/tonne)	Pellet Details
12	65	363	
13	70	480	Vitamins and minerals added
14	68	400	
13	71	397	Vitamins, minerals and Rumensin added
20	71	420	Vitamins, minerals and Rumensin added
13	61	312	
14	65	335	
15	70	355	
14	Variable	391	High fibre
14	Variable	442	Low fibre
14	68-72	350	
14	70	375	Minerals added
14	72	401	Chelated mineral added

**Grain and grain screening pellets** are available to producers from numerous retailers across Saskatchewan. Pellets may be used in feedlot, backgrounding, cow-calf, range or finishing operations. Pellets can be quite variable in feed value, depending on the supplies of grain and grain screenings available to the manufacturer on any given day. Currently, processors are reporting good availability but high grain prices are impacting the cost of the finished product.

Current prices for corn are \$8/bushel, feed wheat \$9.90 - \$10.35 bushel, oats \$3.50 to 4.00/bushel and barley \$7.70 to 8.25/bushel.

Some of the companies offer a trucking option for their products. Prices range, based mainly on distance hauled and size of load. Logically, the longer hauls and heavier loads normally have the lower costs/tonne/mile hauled. Another factor is whether the trailer has an unload auger. Prices range widely from 14 to 39 cents/tonne/mile.

## 8. Forage Price Trends in Neighbouring Jurisdictions

**Table 7. Forage (Asking) Prices in Adjacent Provinces and States (Winter)**

Forage Type	Alberta		Manitoba		Montana*		North Dakota*	
	Price Range (\$)	Avg Price** (\$/Tonne)	Price Range (\$)	Avg Price** (\$/Tonne)	Price Range (\$)	Avg Price** (\$/Tonne)	Price Range (\$)	Avg Price** (\$/Tonne)
Alfalfa – 1 <sup>st</sup> Cut	198-276	236.11 (5)	102-287	203.14 (3)	299-479	407.58 (5)	171-399	266.91 (9)
Alfalfa – 2 <sup>nd</sup> Cut	198-265	235.78 (4)	154-264	198.52 (4)	374-590	460.25 (5)	172-434	263.28 (5)
Alfalfa/Grass	134-301	213.82 (25)	76-190	124.31 (15)	105-481	376.97 (24)	120-366	196.17 (17)
Grass	119-441	231.40 (15)	55-220	109.33 (17)	267-529	361.79 (10)	110-263	158.95 (12)
Straw	55-110	77.56 (21)	55-99	69.81 (10)	150-298	201.39 (7)	90-150	116.16 (13)
Greenfeed	75-213	165.30 (4)	90-190	125.13 (8)	271-442	337.19 (3)	105-199	155.18 (10)
Pulse Straw	66-88	77.16 (2)	66-80	73.15 (2)	149.55	149.55 (1)	n/a	n/a

\*American prices have been converted to CDN currency values average from December 30, 2022 to January 5, 2023 (\$1 USD = \$1.3567 CDN)

\*\*Average Price listed in \$/Tonne and number of offers listed in brackets

**North Dakota** experienced adequate growing season moisture in the spring of 2022, but most regions have been dry since mid-July. According to reports (NDAGConnection.com), as of early November 2022, over 92% of North Dakota was in moderate to severe drought, compared to 65% in 2020. Drought conditions have impacted the condition of range and pasture in the state, particularly as dry conditions in 2020 followed by severe drought in 2021 meant that pastures were not given adequate rest and recovery.

As of January 1, 2023, topsoil moisture supplies rated 42% short or very short, according to the USDA's National Agricultural Statistics Service reporting for Fargo, North Dakota. Subsoil moisture supplies rated 51% short or very short. Having received spring moisture, hay and roughage supplies have improved over last year and are rated 1% very short, 9% short, 87% adequate, and 3% surplus.

**Montana** is seeing a demand for hay this winter as hay supplies were already stretched, and a cold and snowy start to the winter has increased feed consumption and the need for hay, pushing hay prices slightly higher in December 2022 and early January 2023. A large portion of Montana is still in a state of moderate to extreme drought and livestock producers will be depending on hay imports from neighbouring states and/or good growing season conditions to restock forage supplies.

The USDA and Progressive Forage Grower report a widening price gap between alfalfa and other types of hay. In the spring of 2022, this difference was as high as \$100/ton (US dollars), as compared to an average of \$25-\$50/ton from 2017-2021. It is thought that the combination of China's demand for hay and drought in Western dairy states is pushing alfalfa prices higher (Progressive Forage Grower, July 2022).

**Alberta**

The October 2022 Alberta Crop Report indicates that generally in Alberta, soil moisture conditions started out dry, improved in June and early July, then dried off through the fall. Overall livestock feed supplies are adequate for winter and there is a good supply of straw as supplementation. Some pockets of the province are still struggling to recover from dry years in the past, but overall, the outlook for feed supply is improved compared to last year. Producers will be anxious for spring moisture and a good growing season to produce a sufficient quality and quantity of forage in 2023.

**Manitoba**

The Manitoba Crop Report seasonal summary (November 1, 2022) reports that 2022 began with wet spring conditions followed by a warm, moderate summer. Livestock were turned out to pasture early this year due to feed shortages, but the above-average moisture allowed pastures and hayland to recover well. Average to above-average forage production with average quality was reported in Manitoba in 2022 and silage and greenfeed yielded well.

The Manitoba Forage & Grassland Association's November Hay Situation and Price Update (John McGregor, MFGA Extension Support) indicates that forage prices continuing to trend downward as of November, with asking prices being lowered to make sales. These lower prices are attributed to the good forage supply and the cost of transport.

## 9. Forage Seed Prices

The average retail price of commonly purchased and seeded forage species in Saskatchewan is presented in Table 8. This information reflects general forage seed prices at the current time. Prices represent Certified #1 seed, unless otherwise specified.

**Table 8. Forage Seed Prices in Saskatchewan as at January 15, 2023**

Class	Species	2022	2023	2023	2023
		Average Price \$/lb	High (\$/lb)	Low (\$/lb)	Average Price \$/lb
<b>Grasses</b>	Certified Smooth Brome	\$6.24	\$7.00	\$5.25	\$6.25
	Smooth Brome (Common)	\$6.10	\$7.15	\$5.10	\$6.15
	Certified Meadow Brome	\$6.37	\$7.75	\$5.20	\$6.57
	Meadow Brome (Common)	\$6.52	\$6.15	\$5.99	\$6.04
	Hybrid Brome	\$3.92	\$6.59	\$5.70	\$6.26
	Russian Wildrye*	\$4.00	\$	\$	\$9.75
	Tall Fescue	\$4.22	\$5.05	\$3.99	\$4.52
	Fairway Crested Wheatgrass	\$6.90	\$7.99	\$6.65	\$7.23
	Kirk Crested Wheatgrass	\$5.95	\$6.85	\$6.19	\$6.56
	Crested Wheatgrass (Common)	\$5.59	\$6.50	\$3.59	\$5.04
	Intermediate Wheatgrass	\$6.10	\$6.99	\$4.20	\$6.03
	Pubescent Wheatgrass	\$7.48	\$8.75	\$8.50	\$8.62
<b>Legumes</b>	Alfalfa - hay variety	\$5.18	\$6.19	\$5.45	\$5.82
	Alfalfa - creeping root	\$5.32	\$5.85	\$4.70	\$5.45
	Alfalfa (Common)	\$4.05	\$5.60	\$3.85	\$5.48
	Cicer Milk Vetch	\$8.47	\$6.95	\$5.99	\$6.70
	Sainfoin	\$4.50	\$4.59	\$3.45	\$4.04
	Alsike Clover	\$4.27	\$4.75	\$4.10	\$4.46
	Norgold Sweet Clover*	\$3.38	\$3.95	\$2.90	\$5.75
	Common Sweet Clover	\$3.14	\$5.50	\$3.95	\$4.63
	Hairy Vetch	\$3.50	\$4.25	\$3.85	\$4.05

\* indicates only one company reporting price for that species.

Native forage seed pricing is usually included in this table, but extremely limited availability across most species is being reported, with the exception of a few grasses. The survey provided pricing from three companies on Slender Wheatgrass for an average price of \$5.60. With such limited availability of current pricing and product, it was decided to remove native forage seed pricing from the report for this year, and include it again next.

There are more programs supporting producers in seeding land back to native forages; more likely to see uptake and drive markets for native forage seed in years of less drought pressure. A listing of native seed producers may be found through the Native Plant Society of Saskatchewan at <https://www.npss.sk.ca>.



Producers should contact seed companies or distributors for specific information related to product attributes and availability as well as any guarantees of quality, certification or other parameters that are specific to that company, species or variety.

Interest in mixes of annual/biennials continues to build, as more producers are seeding cover crops for soil improvement and livestock feed on cropland. Cover crops are plants sown to provide cover rather than just for harvest purposes. Depending on an individual producer's goals, they may be grown for achieving soil health goals (biodiversity, extending the season, improving ground cover, etc.), to decrease the need for inputs, and/or to provide feed for livestock. Cover crops are gaining in popularity in Saskatchewan, and recently the Federal Government prioritized cover crops as a means of sequestering carbon through the On-Farm Climate Action Fund (OFCAF). Producers who may have been interested in cover crops but wary of the cost or difficulty in insuring them may be incentivized by the financial support of OFCAF to give covers a try. It will be worth observing whether financial incentives from this program will impact cover crop pricing as well.

Cover crop seed may be purchased as individual see types or in a blend that targets a specific purpose such as grazing or seeding after a cash crop is harvested. Cover crop seed cost in Saskatchewan ranges from as low as \$10 per acre to a high of \$90 per acre depending on the complexity of the mix, types of crops selected and seeding rate. Blends may or may not contain commonly available crops like annual cereals and forage peas, and this will also influence pricing. In general, more complex blends with higher growth potential tend to be favoured in areas with higher rainfall, while drier areas may be seeing more success with simpler mixes and lower-cost crops that are likely to establish even with lower rainfall.

Tame forage seed prices have remained fairly consistent over the over the past few years, although some species saw an increase due to production challenges resulting in reduced quality and yield. Feedback from forage seed companies indicated that supply of the major varieties is fairly good, with the exception of clover.

## 10. References

**Alberta Agriculture and Forestry, 2022.** Alberta Crop Report, October 2022. Available online at: <https://open.alberta.ca/publications/2830245>

**Bank of Canada, 2022.** Bank of Canada Daily Exchange Rate. Available online at: <http://www.bankofcanada.ca/rates/exchange/>

**Manitoba Agriculture, 2022.** Final Crop Report 2022: Seasonal Summary. Available online at: <https://www.gov.mb.ca/agriculture/crops/seasonal-reports/crop-report-archive/index.html>

**Manitoba Forage and Grasslands Association:** November Hay Situation and Price Update (John McGregor) <https://mfga.net/>

**Native Plant Society of Saskatchewan.** Native Plant Materials and Services Supplier List. Available online at: [http://npss.sk.ca/docs/2\\_pdf/Native\\_Plant\\_Source\\_List\\_2013\\_-\\_revised.pdf](http://npss.sk.ca/docs/2_pdf/Native_Plant_Source_List_2013_-_revised.pdf)

**Natural Resources Canada, 2023.** Current weekly consumer prices for diesel in 45 Canadian cities plus the average Canada pump price. Available online at: <https://www.nrcan.gc.ca/energy/fuel-prices/4797>

**North Dakota Ag Connection:** forage pricing and seasonal summary. Available online at: <https://www.northdakotaagconnection.com/>

**Saskatchewan Crop Insurance Corporation.** 2022 Precipitation Maps.

**Saskatchewan Forage Council, 2022.** September 2022 Forage Market Price Discovery – Saskatchewan. Available online at: <http://saskforage.ca>

**Saskatchewan Ministry of Agriculture, 2022<sup>1</sup>.** Crop Report for the week ending October 17, 2022. Available online at: <http://saskatchewan.ca/business/agriculture-natural-resources-and-industry/agribusiness-farmers-and-ranchers/market-and-trade-statistics/crops-statistics/crop-report>

**Saskatchewan Ministry of Agriculture, 2023<sup>2</sup>.** 2023 Grasshopper Forecast. Available through the Agriculture Knowledge Centre.

**Statistics Canada:** Census of Agriculture 2021 (released in 2022).

**United States Department of Agriculture, 2022.** Kansas City Daily Feed for the week ending January 13, 2023. Available online at: <https://www.ams.usda.gov/market-news/feedstuffs-reports>

**United States Department of Agriculture, January, 2023.** USDA Market News Weekly Montana & South Dakota Hay Reports December, 2022-January, 2023. Available online at: <https://www.ams.usda.gov/market-news/hay-reports>