

BlacksheepStrategy

**CleanFARMS
Grower Survey Results**

January 12, 2012

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Introduction

In December 2011 / January 2012, a quantitative grower survey was conducted, targeting wheat growers in Alberta, Saskatchewan and Manitoba. This was a syndicated survey, and organizations could participate by inserting proprietary questions of their choice. CleanFARMS participated in this research with several proprietary questions, as outlined on the following slides.

CleanFARMs proprietary questions

1. As you may know, there are programs in place to recycle empty pesticide containers and dispose of obsolete pesticides. These programs are paid for by the manufacturers of the pesticides. There are many other waste products that have no permanent disposal or recycling program, such as bale wrap, twine, grain storage bags and other packaging. Most of these products are being burned on farm or buried in the landfill. Any disposal costs for most of these materials are borne by the farmer.

Would you support provincial regulation that would make it mandatory for manufacturers of the products to fund programs for the collection and recycling of the waste from these products?

Yes / No / Unsure

CleanFARMS proprietary questions, cont'd

2. Since the manufacturers pay for the cost of the pesticide container programs, the program costs are included in the selling price of the products. There is another model that could be used. For example, programs for tires and sometimes paint or electronics have a separate fee that is added on the sales receipt, at the time the product is sold, to cover the cost of collection and recycling. Which model do you prefer for the collection and recycling of agricultural waste products? Do you: [read in random order]
 - Prefer costs to be included in the selling price of the product as they are now
 - Prefer costs to be broken out and shown on the sales receipt
 - Have no preference whether costs are included in the selling costs or visible on your receipt
 - Prefer to have no program, if there are any costs to managing it [do not read]

CleanFARMS proprietary questions, cont'd

3a. Do you use any of the following?

Baler twine

Bale wrap or silage wrap

Grain bags for storing grain

3b. [For each that they use] How do you dispose of your [item from Q3a], do you (read):

Burn it on the farm

Bury it on the farm

Take it to the landfill

Take it to a depot where they will recycle it

Or other

This report

This report has been prepared exclusively for CleanFARMS, and contains the key findings to their proprietary questions. Results have been analyzed by key farm and demographic variables, and any differences noted in this report have been found to be statistically significant.

Research methodology

The survey was conducted by telephone between December 13, 2011 and January 5, 2012, with a random sample of 600 prairie wheat growers. Overall, a sample of 600 is accurate within +/- 4.0% at the 95% confidence level. Sub-samples (for example, by province) have varying levels of accuracy depending on the sample size.

Participants were screened to ensure that they are the main/joint decision-maker, not planning to retire or exit farming in the next five years, and typically grow at least 200 acres of wheat. Over 90% of prairie farmers grow wheat, and the survey is representative of the general farm population.

Introduction, cont.

The 600 survey sample was by stratified by province using a non-proportional sampling plan of approximately 200 interviews per province. The sample was also stratified by size categories (based on growers' wheat acres) with a slight over-sampling of the medium and larger grower categories to generate more data points in these segments.

The final study data has been weighted to reflect the actual distribution of wheat growers and their acres (see following slide). This non-proportional sampling approach allows the survey results to be reliably analyzed for statistically significant differences by key variables of province and size.

Survey sampling and data weighting

		Number of interviews:	Number of 200+ acre wheat growers, as per census counts:	Study data weighted, as follows:
Distribution by province	Manitoba	193 (32%)	4,427 (15%)	92 (15%)
	Saskatchewan	205 (34%)	16,696 (58%)	349 (58%)
	Alberta	202 (34%)	7,582 (26%)	159 (26%)
	Total Prairies	600 (100%)	28,705 (100%)	600 (100%)

Profile of survey respondents

Total acres under crop	% of respondents in each size category			
	Total Prairies	Manitoba	Sask.	Alberta
Less than 1,000 acres	29%	29%	27%	32%
1,000 to 1,999 acres	36%	38%	35%	38%
2,000 to 2,999 acres	16%	15%	18%	12%
3,000 to 4,999 acres	12%	12%	12%	10%
5,000 acres or more	7%	6%	8%	8%
Average acres under crop	2,070	1,980	2070	2,130

Profile of survey respondents

Age	% of respondents			
	Total Prairies	Manitoba	Sask.	Alberta
Under 35	3%	2%	3%	3%
35 to 44	10%	11%	8%	14%
45 to 54	33%	39%	31%	32%
55 to 64	41%	37%	43%	39%
65 years or older	12%	9%	13%	12%
Average age	54	53	55	54
Comparison: Average farmer age, as per most recent census (2006)	52	51	53	52

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**Support for provincial
regulation for
collection and recycling
programs**

Support for provincial regulation for collection and recycling programs

Respondents were read the following pre-amble and asked the following question:

As you may know, there are programs in place to recycle empty pesticide containers and dispose of obsolete pesticides. These programs are paid for by the manufacturers of the pesticides. There are many other waste products that have no permanent disposal or recycling program, such as bale wrap, twine, grain storage bags and other packaging. Most of these products are being burned on farm or buried in the landfill. Any disposal costs for most of these materials are borne by the farmer.

Would you support provincial regulation that would make it mandatory for manufacturers of the products to fund programs for the collection and recycling of the waste from these products?

Yes / No / Unsure

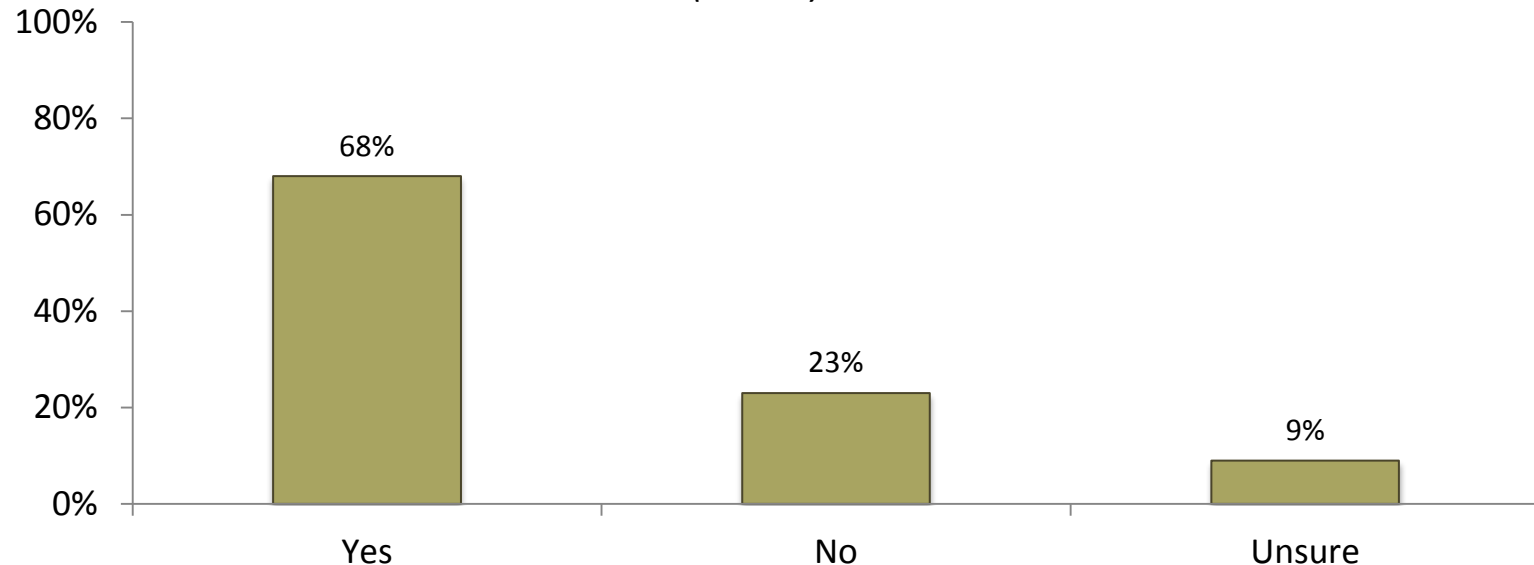
Support for provincial regulation for collection and recycling programs

Over two-thirds of growers say they would support provincial regulation that would make it mandatory for manufacturers of the products to fund programs for the collection and recycling of the waste from these products. Just under a quarter say they would not support this, and just under 10% are unsure.

Support for provincial regulation for collection and recycling programs

Would you support provincial regulation that would make it mandatory for manufacturers of the products to fund programs for the collection and recycling of the waste from these products?

(N=600)



Support of provincial regulation for collection and recycling programs – by province

A higher portion of Saskatchewan growers support the idea of provincial legislation, with almost three-quarters saying they would support this, compared to closer to 6 in 10 Alberta or Manitoba growers.

<i>Would you support provincial regulation that would make it mandatory for manufacturers of the products to fund programs for the collection and recycling of the waste from these products?</i>	% of growers		
	MB (N=193)	SK (N=205)	AB (N=202)
Yes	57%	73%	62%
No	31%	19%	28%
Unsure	12%	8%	10%

Support of provincial regulation for collection and recycling programs – by age category

Comparing age segments, a higher portion of growers over the age of 65 support provincial regulation (78%), while a relatively lower portion in the “middle” age group support it.

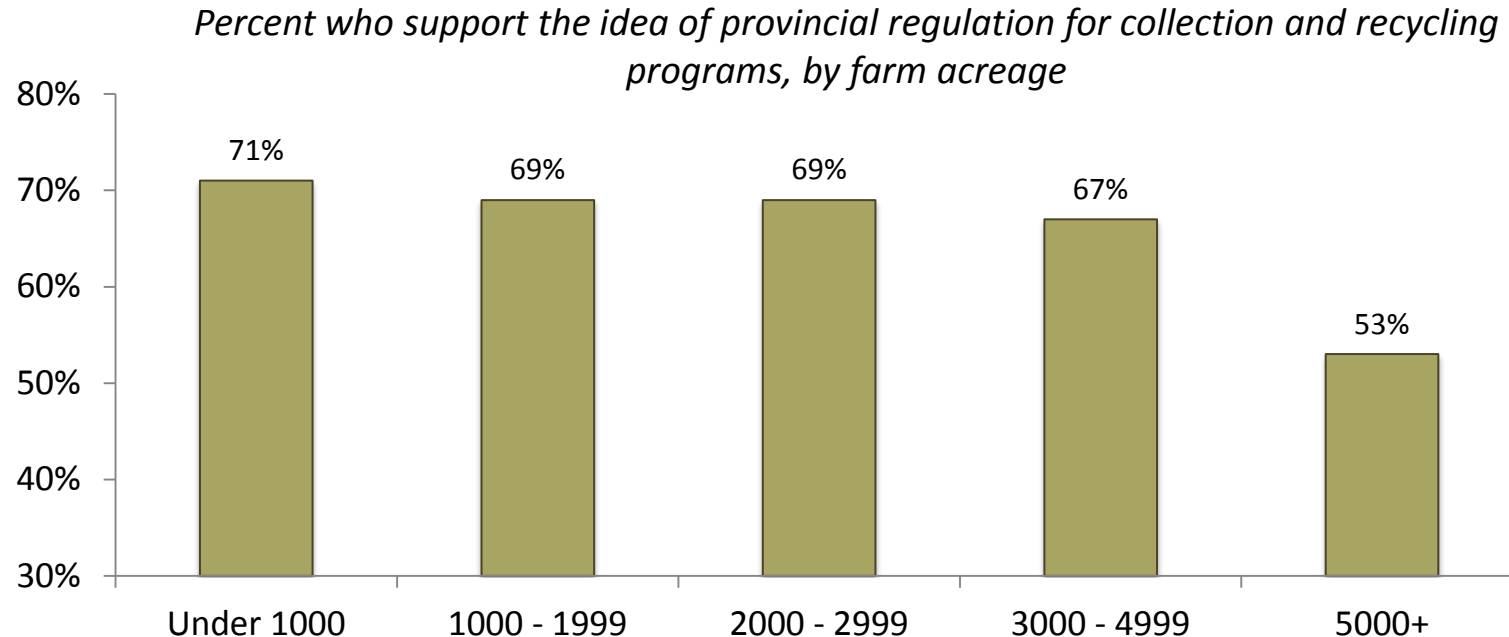
<i>Would you support provincial regulation that would make it mandatory for manufacturers of the products to fund programs for the collection and recycling of the waste from these products?</i>	% of growers		
	< 45 years (N=89)	45 – 64 (N=439)	65+ (N=65)
Yes	73%	66%	78%
No	17%	25%	14%
Unsure	10%	9%	8%

Support of provincial regulation for collection and recycling programs – by acreage

Support for provincial legislation is significantly lower among the largest farmers, with just over half of 5000+ acre farmers supporting this. The chart on the following page illustrates this finding.

<i>Would you support provincial regulation that would make it mandatory for manufacturers of the products to fund programs for the collection and recycling of the waste from these products?</i>	% of growers				
	<1000 (N=137)	1000 – 1999 (N=198)	2000 – 2999 (N=105)	3000 – 4999 (N=94)	5000+ (N=65)
Yes	71%	69%	69%	67%	53%
No	25%	20%	18%	26%	23%
Unsure	4%	11%	14%	7%	11%

Support for provincial regulation for collection and recycling programs – by acreage



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**Preference for how
recycling costs are
charged**

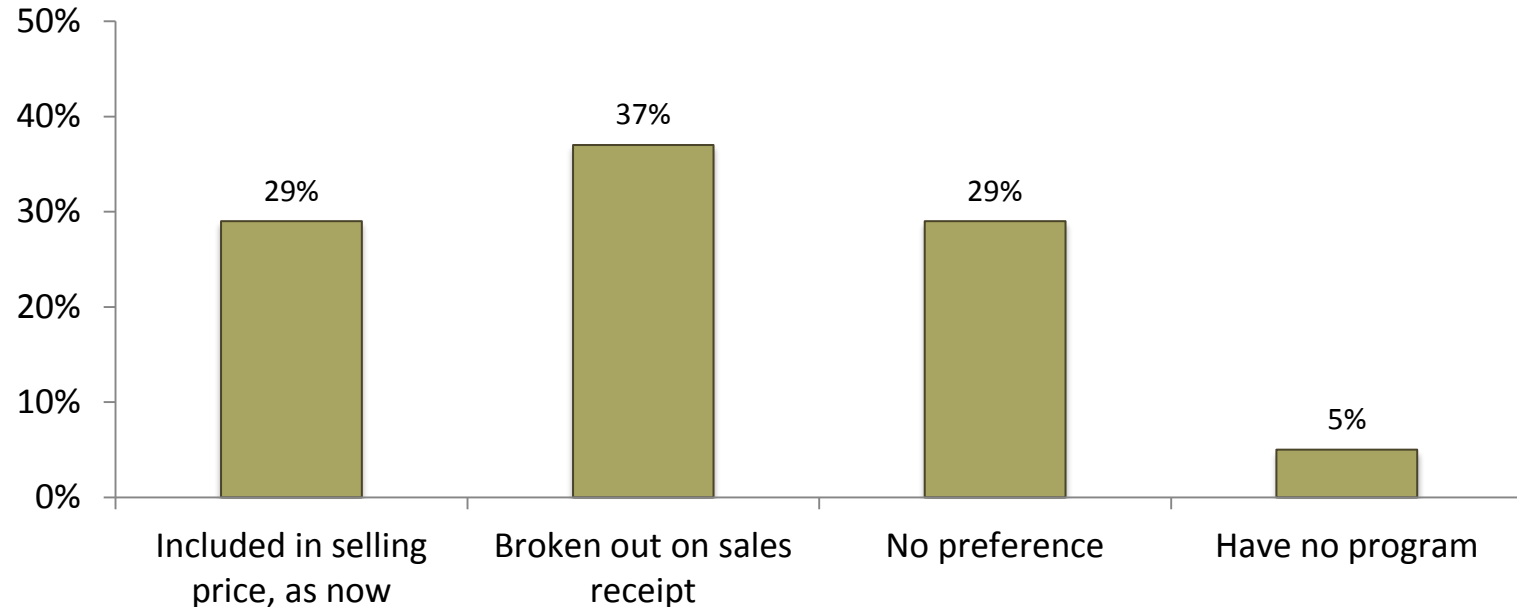
Preference for how recycling costs are charged

When asked whether they would like to see recycling costs broken out on the sales receipt or included within the price of the product, growers are of varying opinions:

- About 3 in 10 prefer to have the recycling cost included in the cost of the product
- Almost 4 in 10 would prefer to have the recycling cost broken out on the receipt
- Another 3 in 10 have no preference
- Although there is a slightly higher preference for having the cost broken out, there is no strong preference either way. About 5% of respondents said they don't want a program if there are costs involved.

Preference for how recycling costs are charged

Which option is preferred for how recycling costs are charged



Preference for how recycling costs are charged – by province

We also see that Manitoba growers are more evenly split on which model they prefer and are more likely to be indifferent.

<i>Which model do you prefer for the collection and recycling of agricultural waste products?</i>	% of growers		
	MB (N=193)	SK (N=205)	AB (N=202)
Included in the selling price	32%	27%	31%
Broken out on sales receipt	31%	39%	37%
No preference	34%	30%	25%
Have no program if there are costs	5%	4%	7%

Preference for how recycling costs are charged – by age category

Growers aged 65 and over are much more likely than younger growers to want the costs to be broken out on the receipt. Over half (52%) of those over age 65 prefer this, as opposed to 34-36% of those in younger age categories.

<i>Which model do you prefer for the collection and recycling of agricultural waste products?</i>	% of growers		
	< 45 years (N=89)	45 – 64 (N=439)	65+ (N=65)
Included in the selling price	33%	29%	23%
Broken out on sales receipt	34%	36%	52%
No preference	30%	31%	16%
Have no program if there are costs	4%	5%	8%

Preference for how recycling costs are charged - by acreage

There are no significant differences in the model preferred, by acreage.

<i>Which model do you prefer for the collection and recycling of agricultural waste products?</i>	% of growers				
	<1000 (N=137)	1000 – 1999 (N=198)	2000 – 2999 (N=105)	3000 – 4999 (N=94)	5000+ (N=65)
Included in the selling price	29%	27%	31%	38%	33%
Broken out on sales receipt	34%	41%	37%	41%	33%
No preference	30%	27%	31%	30%	28%
Have no program if there are costs	7%	5%	2%	1%	7%

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**Use and disposal of
twine, silage/bale wrap
and grain bags**

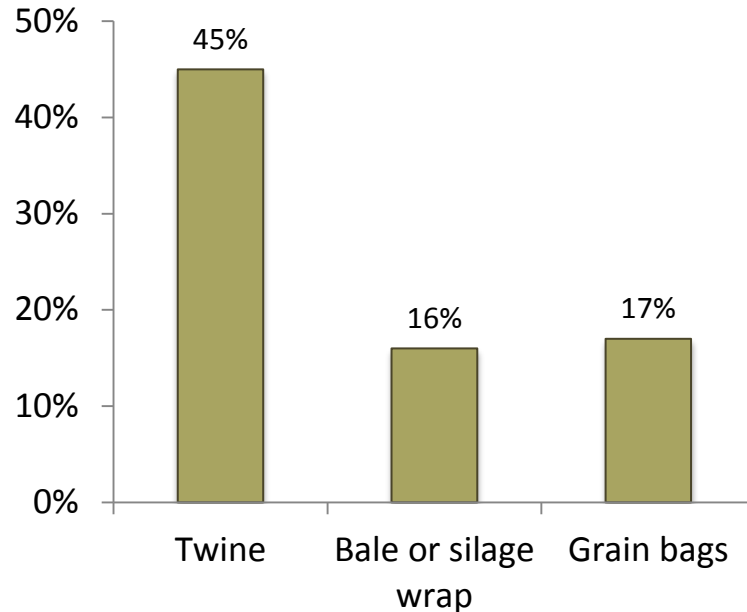
Portion of growers who use twine, bale/silage wrap and grain bags

This question was added during fielding of the survey, and asked of Alberta and Saskatchewan respondents. In total, the question was asked of 281 respondents, 156 in Alberta and 125 in Saskatchewan.

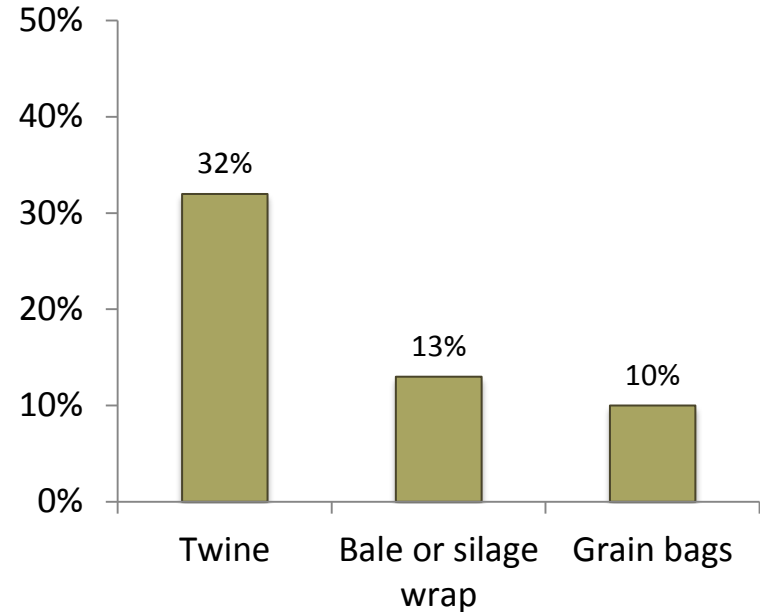
- In Alberta, 45% of respondents use twine, 16% use silage or bale wrap, and 17% use grain bags.
- In Saskatchewan, 32% of respondents use twine, 13% use silage or bale wrap, and 10% use grain bags.

Portion who use twine, bale or silage wrap and grain bags

Alberta (N=156)



Saskatchewan (N=125)



Portion who use twine, bale or silage wrap and grain bags – by province

Respondents in Alberta are more likely to use grain bags, compared to those in Saskatchewan. A higher portion of Alberta respondents use twine, compared to the portion in Saskatchewan. Other than this, there are no significant differences in the portion of specific segments who use twine or bale/silage wrap.

<i>% who use</i>	% of growers	
	SK (N=125)	AB (N=156)
Twine	32%	45%
Bale / silage wrap	13%	16%
Grain bags	10%	17%

Portion who use twine, bale or silage wrap and grain bags – by age

Growers under the age of 45 are more likely to use grain bags compared to older growers, with about a quarter of those under the age of 45 using grain bags.

<i>% who use:</i>	% of growers		
	< 45 years (N=45)	45 – 64 (N=198)	65+ (N=37)
Twine	37%	38%	33%
Bale / silage wrap	11%	14%	11%
Grain bags	24%	11%	9%

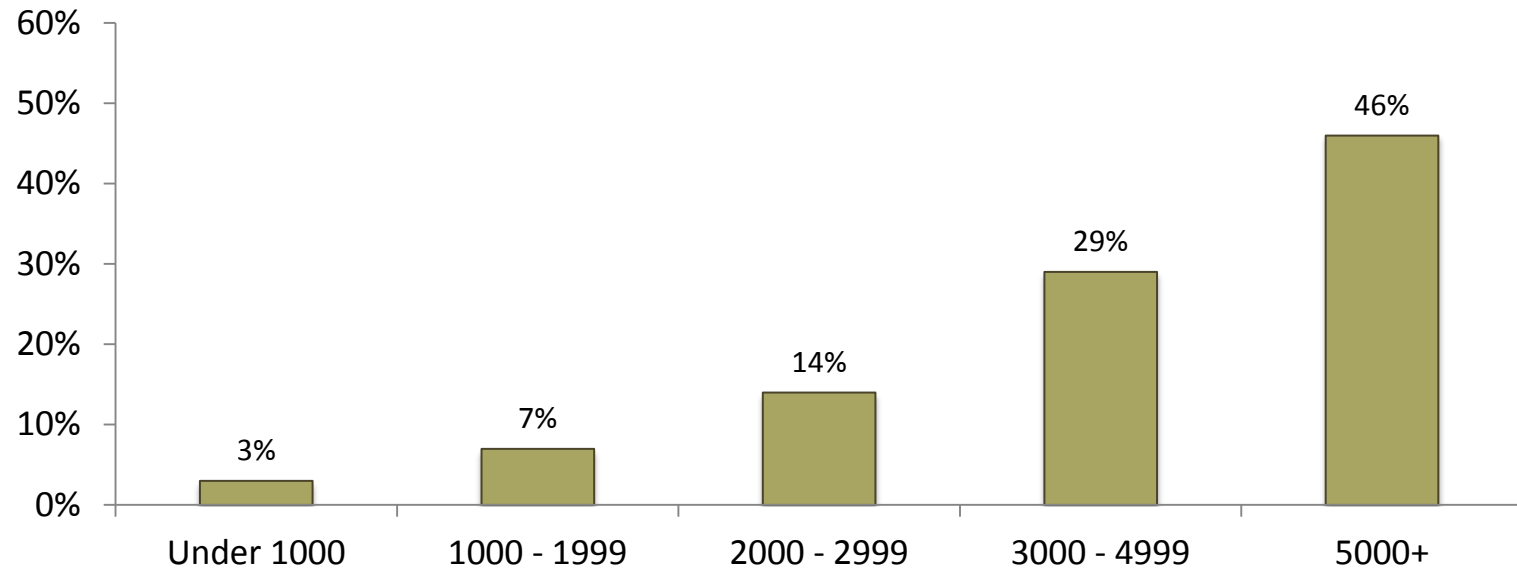
Portion who use twine, bale or silage wrap and grain bags – by acreage

The likelihood of using grain bags is strongly correlated with farm acreage. Growers with larger acreage are more likely to use grain bags (see also the chart on the following slide).

<i>% who use:</i>	% of growers				
	<1000 (N=69)	1000 – 1999 (N=85)	2000 – 2999 (N=50)	3000 – 4999 (N=43)	5000+ (N=35)
Twine	39%	44%	21%	37%	39%
Bale / silage wrap	14%	11%	16%	18%	15%
Grain bags	3%	7%	14%	29%	46%

Use of grain bags by acreage

Percent who use grain bags, by farm acreage (N=281)

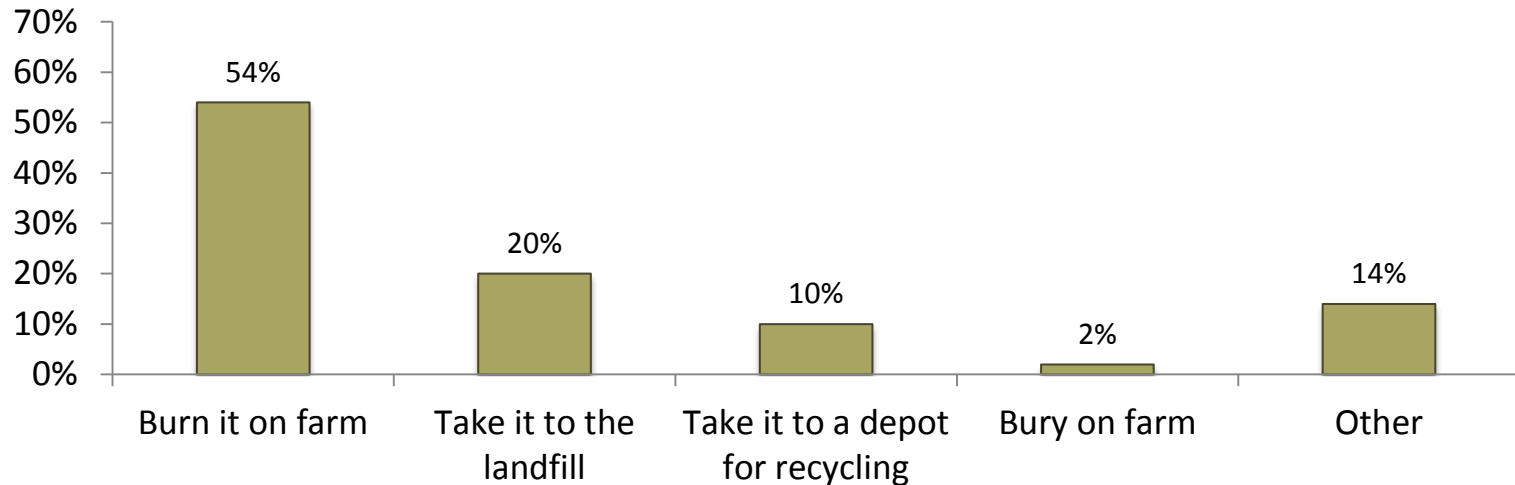


How do Alberta growers dispose of their twine, bale/silage wrap and grain bags?

- Over half (54%) burn their twine on farm, and another 20% take it to the landfill. About 1 in 10 take it to a depot for recycling.
- Over half (56%) also burn their bale/silage wrap, and 1 in 10 take it to the landfill. Fourteen percent (14%) take it to a depot for recycling.
- About a quarter of those who use grain bags burn them on farm and 1 in 10 take them to the landfill. About a quarter take them to a depot for recycling, and 4 in 10 dispose of them in another way.
- Note that sample sizes are small for grain bags and bale/silage wrap, as a small portion of growers in the sample use these products. However, the data provides directional information that can be used to provide an indication of the proportions of growers disposing of these items in various ways.

How twine is disposed of - Alberta

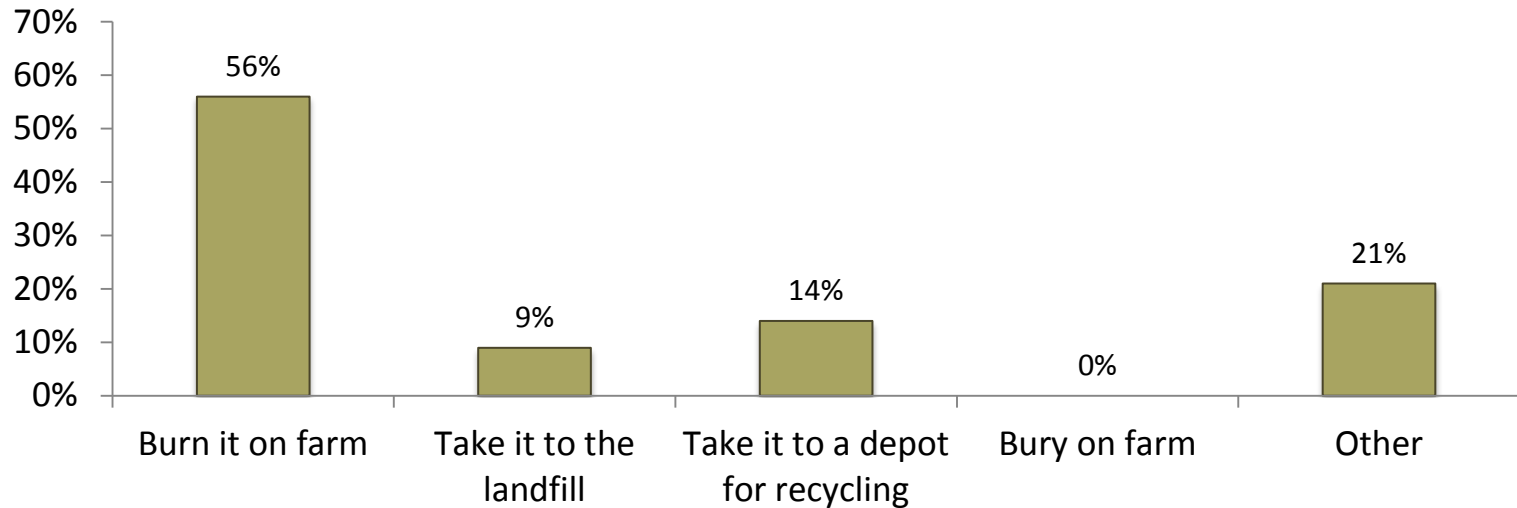
Alberta (Base: those who use twine, N=55)



Note: In this and the following charts, the N reported is the actual number of cases whereas percentages on this and preceding slides are based on the data weighted by province and farm size.

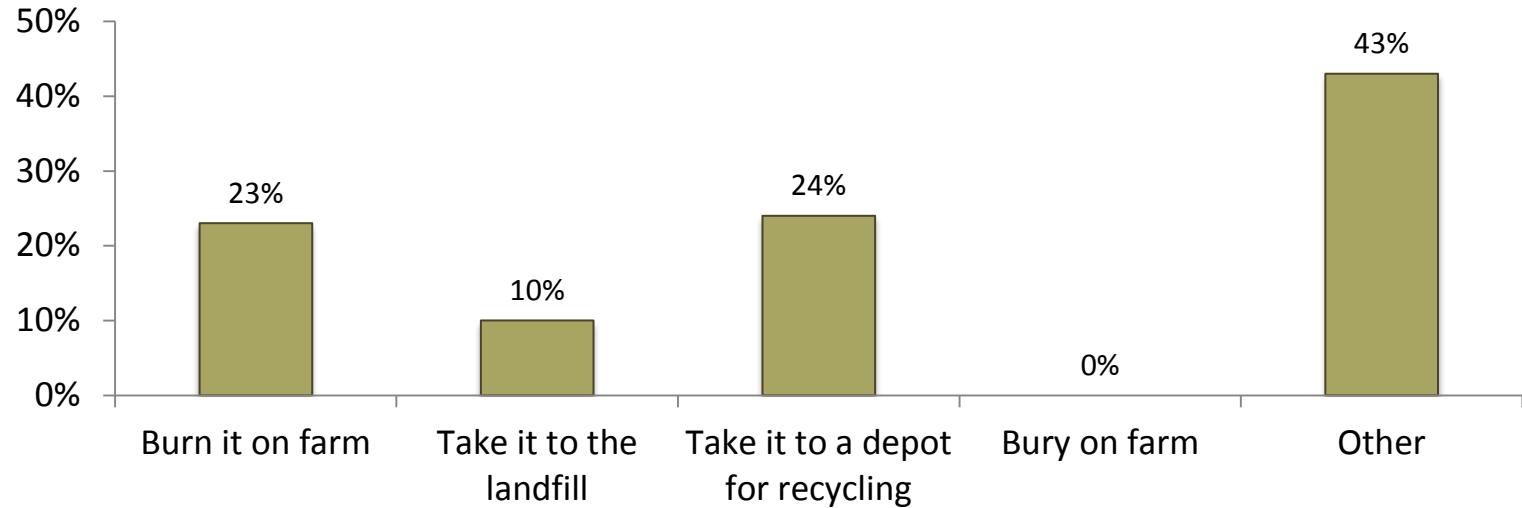
How bale or silage wrap is disposed of - Alberta

Alberta (Base: those who use bale or silage wrap, N=20)



How grain bags are disposed of - Alberta

Alberta (Base: those who use grain bags, N=21)

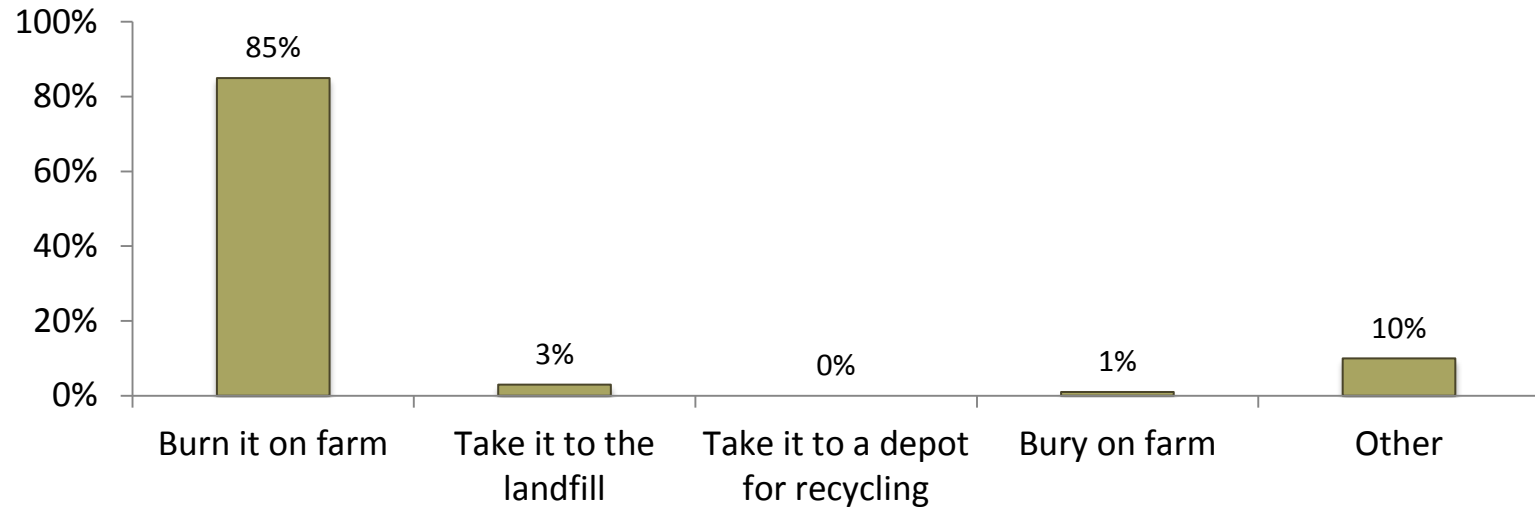


How do Saskatchewan growers dispose of their twine, bale/silage wrap and grain bags?

- The vast majority (85%) burn their twine on farm.
- As well, the majority (80%) burn their bale/silage wrap, and about 1 in 10 take it to the landfill.
- About a quarter of those who use grain bags burn them on farm and 1 in 10 take them to the landfill. About a quarter take them to a depot for recycling, and 4 in 10 dispose of them in another way.
- Note that sample sizes are small for grain bags and bale/silage wrap, as a small portion of growers in the sample use these products. However, the data provides directional information that can be used to provide an indication of the proportions of growers disposing of these items in various ways.

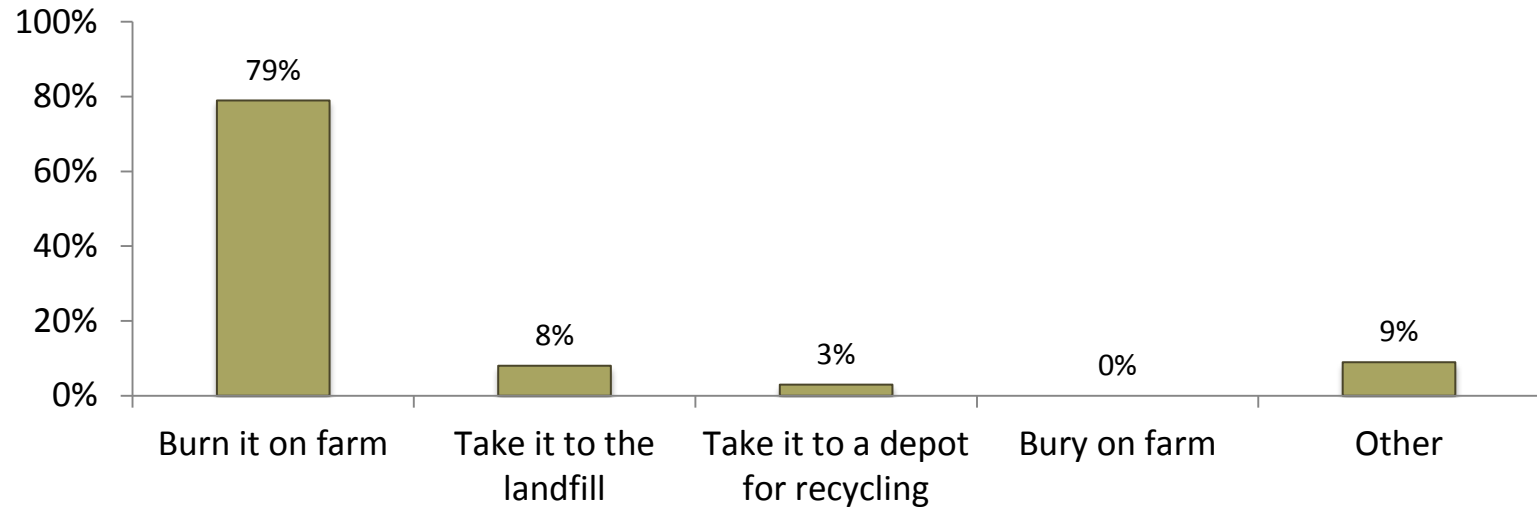
How twine is disposed of - Saskatchewan

Saskatchewan (Base: those who use twine, N=69)



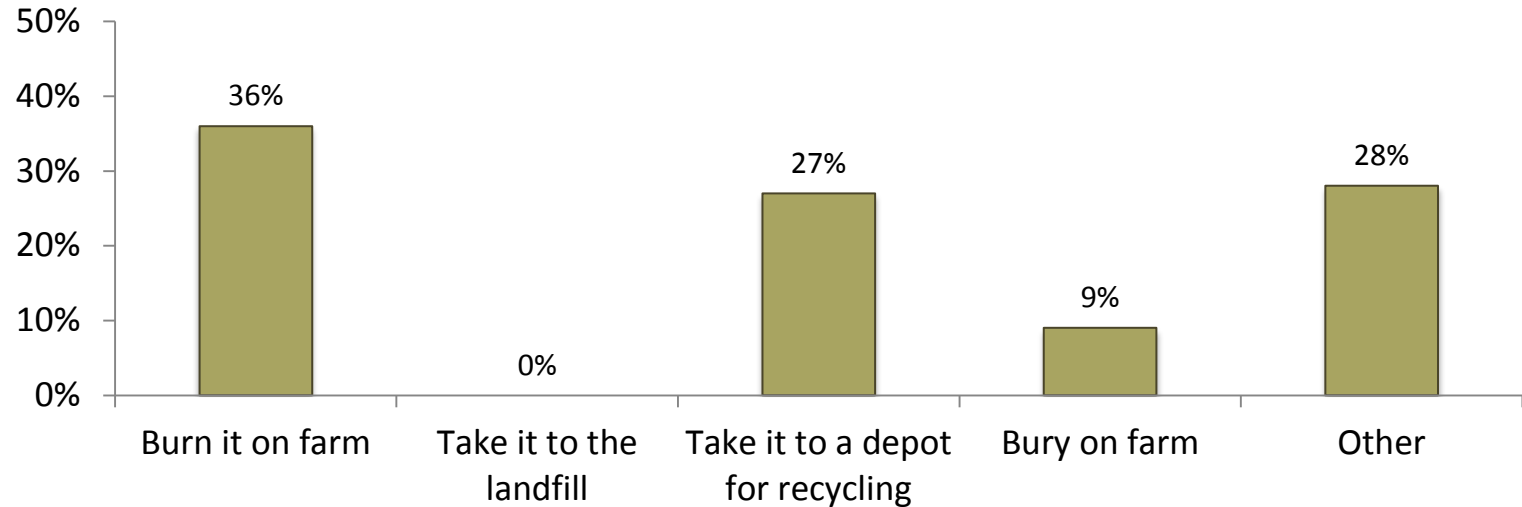
How bale or silage wrap is disposed of - Saskatchewan

Saskatchewan (Base: those who use bale or silage wrap, N=27)



How grain bags are disposed of - Saskatchewan

Saskatchewan (Base: those who use grain bags, N=21)



Differences between how various groups dispose of their plastic waste

Analysis shows that:

- Growers over the age of 65 are much more likely to burn twine and bale or silage wrap, compared to younger growers.
- There are no other significant differences between groups, when comparing how growers dispose of twine, bale / silage wrap or grain bags.