

2003 Annual Report

Recycling Programs

This is the annual report of province-wide recycling programs that are overseen by Environmental Protection Branch of Saskatchewan Environment.

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Further information on these programs can be obtained by referring to the Environmental Protection Branch publication, *Recycling in Saskatchewan*, or to the Annual Reports of the recycling agencies involved with the recycling programs.

Beverage Container Collection and Recycling Program

Objective

The objective of this program is to provide a provincial system to collect and recycle designated non-refillable beverage containers that have been distributed in Saskatchewan.

Program Description

The program is predicated on four main elements.

1. The beverages and the containers that they are packaged in, that are subject to this program, are designated under *The Litter Control Designation Regulations, 1998* (pursuant to *The Litter Control Act*). To date, designated beverages are those which are "ready to serve" (i.e. ready for immediate consumption by the purchaser) and fall within the following categories: beverage alcohol (as defined in *The Alcohol and Gaming Regulation Act*), carbonated and non-carbonated soft drinks, carbonated and non-carbonated fruit drinks, fruit and vegetable juices, non-alcoholic beer and wine, tea and table water. Container types currently designated include: metal cans; plastic bottles; non-refillable glass bottles; multi-material, shelf stable containers (i.e. aseptic containers, Tetra Paks, etc.) and paper-based, polycoat, gable top containers.
2. Beverage containers that are designated must be approved by the Minister of Environment prior to being distributed in Saskatchewan.
3. Manufacturers/wholesale distributors of beverages into the province must report the amount of beverages distributed and remit to Saskatchewan Finance the appropriate environmental handling charge (EHC) and the refundable deposit for each container distributed (see Table 1).
4. The EHCs being remitted are used to fund the collection and recycling of the beverage containers while the refundable deposits provide an incentive to the consumer to recycle the containers. Collection of the beverage containers and return of the refundable deposit to the consumer is carried out by SARCAN Recycling through a province wide depot system.

SARCAN Recycling is a division of the Saskatchewan Association of Rehabilitation Centres (SARC), a provincial co-ordinating and advocacy organization comprised of 62 independent agencies dedicated to improving educational/training opportunities and the employment potential of persons with disabilities. SARCAN was created in 1988 when Saskatchewan Environment contracted SARC to operate a province wide depot system to collect and recycle beverage containers. Currently, SARCAN operates 71 collection depots in 62 communities, two processing plants and an administration center (in Saskatoon). SARCAN employs 480 people, approximately 71% of who are persons with disabilities or formerly recipients of social assistance.

At SARCAN's processing plants in Regina and Saskatoon, collected materials are sorted, compressed, crushed, baled, etc. and shipped to markets for reprocessing into new products.

- Aluminum becomes new aluminum cans; tin/bi-metal cans become new steel pipe; and plastic is converted into non-food bottles, polyester clothing and carpeting. Glass is made into new bottles, reflective beads for highway striping and fiberglass insulation. Juice boxes are converted into paper products and aluminum foil, and milk jugs are converted into non-food containers.

Table 1

Environmental Handling Charges and Refundable Deposits

Container Type	Environmental Handling Charge (per container)	Refundable Deposit (per container)		
		0 - 300 ml.	301 - 999 ml.	1 litre or more
Metal cans	5¢	10¢	10¢	20¢
Plastic bottles	6¢	10¢	10¢	20¢
Non-refillable glass bottles	7¢	10¢	20¢	40¢
Multi-material, shelf stable containers (i.e. aseptic, Tetra-Pak, juice box, etc.)	3¢	5¢	5¢	5¢
Paper-based, polycoat, gable top containers	3¢	5¢	5¢	5¢

Summary of Achievements in 2003

During the 2003-2004 fiscal year (April 1, 2003 to March 31, 2004), SARCAN collected and recycled approximately 237 million designated beverage containers. The overall recovery rate for all non-refillable, designated beverage containers for 2003-2004 was approximately 87%.

Table 2 on the following page indicates the approximate number of beverage containers recovered and the associated recovery rates based on container type for 2003-2004 and the two preceding fiscal years.

Table 2

**Recovery Rates for
Designated Beverage Containers**

Container Type	2001-2002		2002-2003		2003-2004	
	Containers Recovered (approx.)	Recovery Rate	Containers Recovered (approx.)	Recovery Rate	Containers Recovered (approx.)	Recovery Rate
Metal Cans	116,044,871	92.63%	117,636,884	96.86%	122,679,380	95.90%
Plastic Bottles	64,912,245	82.33%	67,420,650	91.01%	71,729,996	86.72%
Non-refillable, glass bottles	21,703,712	82.66%	22,880,812	88.78%	24,405,644	86.18%
Multi-material, shelf stable containers and paper-based, polycoat, gable top containers	14,363,683	46.78%	17,274,496	53.40%	18,324,737	54.63%
OVERALL TOTALS	217,024,511	83.12%	225,212,842	88.79%	237,139,757	87.03%

For Information

For further information contact SARCAN Recycling at 111 Cardinal Crescent, Saskatoon S7L 6H5, Phone: 1-800-667-3016.

Pesticide Container Collection Program

Each year at the end of a growing season, Saskatchewan farmers end up with several million used plastic pesticide containers that represent a valuable resource that can be recycled economically and safely if properly cleaned.

Program objective

Pesticide container collection and disposal in Saskatchewan is operated through an industry stewardship program dedicated to mitigate the environmental impacts that pesticide containers may have on the environment.

Program Description

The program was initiated and managed by Saskatchewan Environment (SE) in 1983, with voluntary participation by rural municipalities as owners and operators of the municipal collection sites. Since 1983 the program has changed to meet the program goals:

- Provision of a safe and environmentally effective program;
- Obtain a high rate of return of rinsed containers;
- Efficient and cost effective sites;
- Complete support of producers, dealers and other prime stakeholders.

Since 1989 Crop Life Canada, an industry group that represents the manufactures, developers and distributors of plant life science solutions for agriculture have actively managed and funded the pesticide container collection program.

As of December 2003 Crop Life Canada has established 472 dealer collection sites; 52 municipal sites remain open in areas where no dealers exist.

Product users are required to clean, triple rinse, properly drain and dry the plastic containers before they are delivered to participating dealers or to protected rural municipal sites. Dealers seal the containers in specially designed plastic bags, which are transported by selected distributors to a central depot. Containers are also collected from protected rural municipal sites.

Containers are shredded, and the plastic is recycled into curb stops and fence posts, or used as an energy source in some industrial plants. Plastic containers now represent 99% of the containers collected.

Summary of Achievements in 2003

During 2003, a total of 2,099,131 plastic containers were collected. The number of containers collected in 2003 represents an increase of 254,924 containers over the containers collected in 2002.

By 2003-year end, 52 Municipal Collection Sites remain open in areas where no pesticide dealers are present.

Program Future

The majority of municipal collections sites will be closed and volunteer dealers will handle the pesticide container collection portion of the program. Crop Life Canada and Saskatchewan Environment will work with communities to properly decommission municipal collection sites. Crop Life Canada will administer program funding.

For Information

For further information on where to deposit containers, contact the Crop Life Canada at Ph: 1-877-874-3444 or consult the nearest municipal office.

The Scrap Tire Management Program

In Saskatchewan we generate a million scrap tires every year, enough to cover 70 football fields! Tires are manufactured to be long lasting, and this becomes an environmental liability when disposing of the tires. They don't breakdown easily, they take up significant space in waste disposal grounds, attract vermin and pose a fire hazard. Chemicals from burned tires poison the air and leach into the soil, polluting ground water.

Program Objective

This is an industry stewardship program dedicated to the collection and recycling of these tires to mitigate the environmental impacts that scrap tires have on the environment.

Program Description

The Saskatchewan Scrap Tire Corporation (SSTC), a non-profit, non-government agency formed in 1996, manages a program to collect tires and to recycle them from a harmful waste into useful products. At the request of industry, the government passed *The Scrap Tire Management Regulations*, in 1998, making it mandatory for all tire retailers to participate in the program or to contract an agency to provide this service.

The program has a current membership of approximately 1,200 retailers, including all who sell or supply new tires either individually or on vehicles (such as cars, trucks, farm implements, recreation vehicles). First sellers collect a Tire Recycling Fee or more commonly known as an Environmental Handling Charge (EHC) on every new tire sold in Saskatchewan (see Table 3), remit the fee to SSTC and send the used tires to a recycling plant. The EHC's finance the program and support projects and companies that recycle scrap tires. There are similar programs across Canada and the USA, however Saskatchewan's program is unique in that it collects tires of all sizes and charges varying recycling fee based on tire size.

Table 3

Environmental Handling Charges for Tires

\$ 3.50	Passenger, light truck, small industrial and agricultural machinery tires
\$ 5.00	Medium truck and implement tires up to 20"
\$10.00	All agricultural equipment tires over 20" including rear Ag (tractor) and grader tires
\$35.00	Off the Road (OTR) tires 20.5 x 25" and up

Note: Maximum of 8 tires charged on new agricultural machinery

- ☛ Tires find new life in athletic fields and as truck box liners, planters, playground equipment, vehicle ramps, flooring, civil engineering material, molded products and alternate fuels; new products using scrap tires are continually being developed.

Summary of Achievements in 2003

Achievements are as follows:

- ▶ Collected 650,109 tires of all sizes, equivalent to 27.4 million pounds of material or 1.4 million passenger car tires were collected and recycled;
- ▶ This represents a rate capture rate of 65% assessed against new tires sold
- ▶ Phase Two of the program - the clean up of scrap tires at registered landfills continued with the removal of stock piles of scrap tires from the waste disposal grounds in 35 communities, bringing to total to 115 communities serviced.
- ▶ Prairie Rubber Corporation (PRC) in Assiniboia increased its capacity to include an ambient crumbing operation.
- ▶ Shercom Industries is expanding their operation to include an ambient crumbing operation in addition to their molded products line.

Program Future

Phase One of the program, the collection of scrap tires from first sellers will continue, as will Phase Two, the removal of stockpiled scrap tires at landfills.

For information

Contact the SSTC at P.O. Box 1936, Regina S4P 3E1.
Ph: 306-721-TIRE (721-8473),
FAX: 306-721-1585.

Used Oil Material Recycling Program

Used oil is the largest source of waste dangerous goods in the province. When disposed of improperly it can contaminate the air and soil and can make water unfit for drinking. Since it can be re-refined into products with the same quality as it originally had, and since oil is a non-renewable source, it makes sense to recycle it, reuse it and not discard it.

Objective

The program objective is to establish a province-wide used oil recycling program that meets the *Used Oil Collection Regulations* and that maximizes the cost-effective collection of oil, filters and containers. The regulations state:

3(1) No first seller shall sell, distribute or offer for sale, either directly or indirectly, oil or oil filters in Saskatchewan unless:

(a) the first seller operates a product management program approved by the minister; or

(b) the seller enters into an agreement with a person who operates on the first seller's behalf a product management program approved by the minister.

Program description

The Saskatchewan Association for Resource Recovery Corporation (SARRC) is a non-profit corporation formed by the oil and oil filter industry in Saskatchewan to develop, implement and maintain a single, cost effective, province-wide Used Oil Material Recycling Program. As part of SARRC's product management program, all oil and filter marketers must collect an Environmental Handling Charge (**EHC**) on the first sale of oil, filters and containers in the province.

At the present there are 113 SARRC members representing major oil companies, filter and container manufacturers and marketers in Canada and the USA. There are similar organizations in Alberta and Manitoba.

The program is funded by the industry, which collects and remits the EHC (see Table 4 next page) to SARRC. The EHC's are dedicated by SARRC to the collection and the management and recycling of used oil and related materials through a Recycling Program. The EHC's are used to encourage the collection and processing of used oil material through a Return Incentive (**RI**) for carriers and processors of used oil material.

The Recycling Program encourages the development of collection centres and construction of EcoCentres for use of do-it yourself (**DIY**) consumers. These EcoCentres provide drop-off facilities for the **DIY** consumers such as private motorists, farmers and small commercial operators who service their own vehicles and equipment.

Table 4

Environmental Handling Charges on Oil and Oil Products

Collectible oils	\$0.05 per liter
Consumable oils (eg. Two-cycle oil, chain oil)	Exempt
Oil containers under 30 liters capacity	\$0.05 per liter of capacity
Oil containers over 30 liters capacity	Exempt
Oil and diesel fuel filters under 8" in length	\$0.50 per filter

Oil and diesel fuel filters 8" in length or longer	\$1.00 per filter
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Summary of 2003 Achievements

The program has encouraged the development of over 350 used oil collection facilities that consumers can use in over 200 communities. In order to increase the number of EcoCentres and return rates for oil containers, SARRC had taken the following actions.

- Instead of the previous 50-50 cost sharing with their partners for the construction of the EcoCentres as of January 2000, SARRC will pay the full cost.
- For the existing EcoCentres the agreement will not be retroactive but SARRC will forgo any remaining payments from their partners.

On June 7, 2000 a new partnership among recycling organizations and Saskatchewan Environment was announced. The Saskatchewan Association of Rehabilitation (SARC) has agreed to team with SARRC to expand the provinces network of used oil material recycling facilities. Sixteen of the new EcoCentres are now be operated by Saskatchewan Association of Rehabilitation Centres (SARC) members. This partnership has created 16 new part time employment opportunities for persons with disabilities.

The regulations require SARRC to establish a minimum of 31 permanent collection depots covering 39 service zones in the province. At the end of 2003, there were 36 EcoCentres in operation in Bengough, Bigger, Creighton/Flin Flon, Davidson, Esterhazy, Fort Qu'Appelle, Gravelbourg, Grenfell, Hudson Bay, Humboldt, Kindersley, Leader, Maple Creek, Meadow Lake, Melfort, Melville, Moose Jaw, Moosomin, Nipawin, Outlook, Preeceville, Prince Albert, Rosetown, Redvers, Regina, Saskatoon (2) Shaunavon, Spiritwood, Swift Current, Unity, Watrous, Weyburn, Wynyard Yorkton and La Ronge .

Further, Saskatchewan businesses and residents generate approximately 20 million litres of used oil every year. Before the program was introduced, only about 6 million litres of oil were collected annually, with much of the balance being improperly discarded. In 2003, there were 15.86 million litres of used oil that were recycled.

In addition, Saskatchewan businesses and residents use 2 million filters and 7 million oil containers annually. Prior to this program only about 100,000 used filters were collected per year along with 10,000 kg of containers, with much of the balance also being improperly discarded. In 2003, there were over 1.84 million filters and 229,709 kg of oil containers recycled.

Table 5

Used Oil Material Recycled

	2001 12 month	2002 12 month	2003 12 month	Total since 1997
Oil Litres	15,900,000	15,350,000	15,860,000	94,290,000
Oil Filters	1,680,000	1,810,000	1,840,000	9,990,000
Container Kilograms	193,425	193,150	229,709	938,307

Program Future

SARRC Used Oil Material Recycling Program results have far exceeded initial program expectation, protecting the environment and promoting and facilitating the recovery of valuable, non-renewable resources. The program provides a single, comprehensive, cost-effective, sustainable and province-wide program in harmony with similar programs in Alberta and Manitoba.

For Information

Contact SARRC at 2366 Avenue C North, Saskatoon S7L 5X5 or call the toll-free information line at 1-877-OIL-SASK, or visit SARRC at www.usedoilrecycling.com on their website.