

CANADA
DEPARTMENT
OF
NORTHERN AFFAIRS
AND
NATIONAL RESOURCES

FORESTRY BRANCH
FOREST RESEARCH DIVISION
Ottawa, 1954

FOREST FIRE LOSSES IN CANADA
1953

Issued under the authority of
The Minister of Northern Affairs and National Resources

AREA BURNED BY FOREST FIRES IN CANADA

(YUKON AND NORTHWEST TERRITORIES NOT INCLUDED)

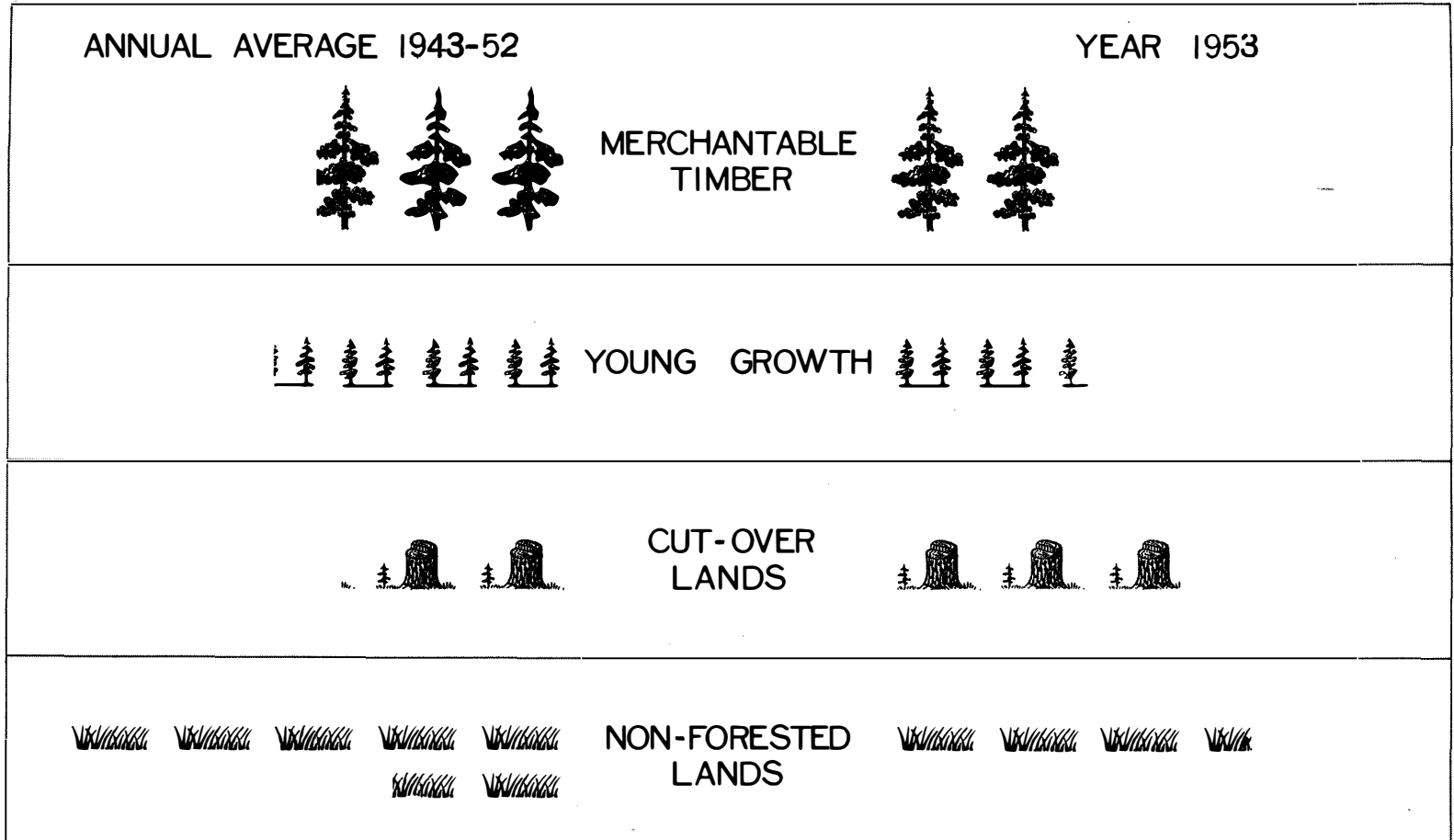


FIGURE 1

EACH SYMBOL REPRESENTS 100,000 ACRES

FOREST FIRE LOSSES IN CANADA - 1953

INTRODUCTION

More than six and one-half thousand forest fires were reported in Canada during 1953. In other words, there were more than 30 new forest fires started each day, on the average, throughout the fire season -- and most of these fires were caused by human error or carelessness.

Every year, increasingly large sums of money are expended on forest conservation and fire prevention activities with the view of so educating woods travelers and workers that they will realize the necessity of being careful with fire in the forests. Progress in these endeavours is apparent but, with the increased use of the woods for recreational and industrial purposes, there has been little, if any, net gain during the past several years.

Research investigations and "cut-and-try" activities are enabling forest fire protection organizations to constantly improve fire control practices. Results of these improved practices become evident from a perusal of average-fire-size figures which, during the past 20 years, show a distinct downward trend. For the five-year period ended in 1938 the size of the average forest fire in Canada was 424 acres, but was only 277 acres for the five-year period ended in 1953. The significance of these figures is enhanced when consideration is given to the fact that the total forested area being afforded fire protection has been considerably increased in recent years, and that fires in some of the more remote and inaccessible areas, which formerly would not have been reported upon, are now included in these statistics.

Since the forest fire statistics for Newfoundland prior to the year 1949 are not available for this bulletin, they are not included in those portions of the charts and tables dealing with 10-year averages. Similarly, long-term records are not yet available for the Yukon and Northwest Territories, and data relating to them are listed separately (see Table 1).

CLASSIFICATION OF BURNED AREAS BY PROVINCES

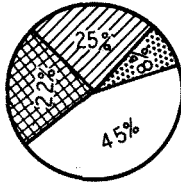
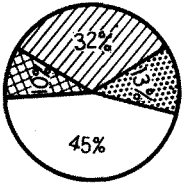
TWENTY-YEAR AVERAGE 1933-1952

Areas Burned

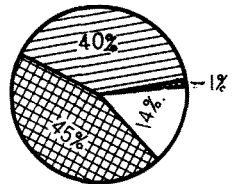
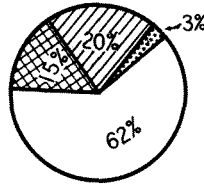
Values Lost

Areas Burned

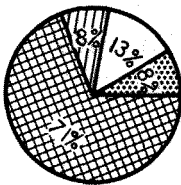
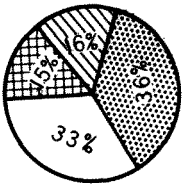
Values Lost



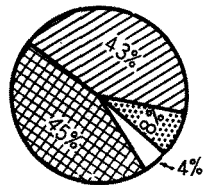
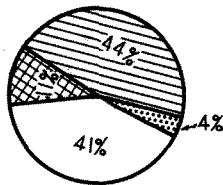
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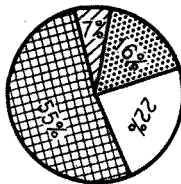
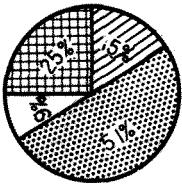
MANITOBA



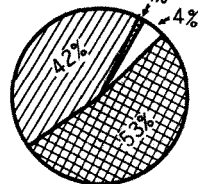
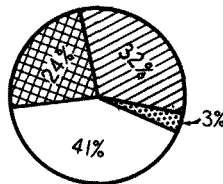
NEW BRUNSWICK



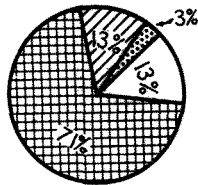
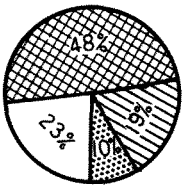
SASKATCHEWAN



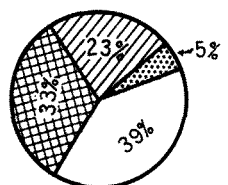
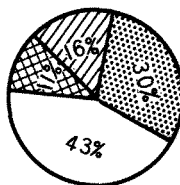
QUEBEC



ALBERTA



ONTARIO



BRITISH COLUMBIA



Merchantable Timber



Young Growth



Cut-over



Non-forested

FIGURE 2

The total area afforded some form of organized forest fire protection during 1953 amounted to approximately 1,254,000 square miles, an increase of 69,000 square miles over the area reported as being protected the previous year. There is little object in comparing these figures with Canada's total forested area because much non-forested land is, of necessity, afforded protection against fire. Further reference to the protection of such lands may be noted under Fire Losses.

For several years there has been a rapid rise in the costs of forest fire protection in Canada. Each succeeding year since 1949 has seen new record amounts expended and, in 1952, the estimated costs were just short of \$15,500,000 -- an increase of \$1,250,000 over the previous year. These figures include such items as purchase and maintenance of fire-suppression equipment, fire prevention expenditures, salaries and wages of regularly employed personnel, construction and maintenance of improvements, and other costs not chargeable to individual fires. Final cost-of-protection figures for 1953 will not be available until 1955.

Costs of actual fire-fighting, which can be charged to individual fires and are not included in the protection costs noted above, reached an all-time high in 1953 of \$3,679,216. Almost two-thirds of this total was expended on fire suppression in Quebec (see Table 6).

Fire Losses

It is fortunate that there is no direct relationship between the annual number of forest fires and the area burned, because there were 6,440 fires reported in Canada during 1953, an increase of nearly 28 per cent over the average annual total of 5,121 fires during the previous ten years. Despite the increase in the number of fires this year, there was a decrease in the total area burned. A little over one and one-third million acres were destroyed in 1953 as compared with average annual losses of more than one and a half million acres for the 10-year period ended in 1952 (see Table 1). However, this one and one-third million acres is higher than the 1952 total burned-over area of less than one million acres.

A million acres of land, forested or otherwise, is a lot of territory. The total area occupied by the 379 cities and towns in Canada having a population of more than 2,500 persons* amounts to some 1,063,000 acres, or about 285,000 acres less than the area burned by forest fires in 1953. If these municipalities, rather than the forests, had been burned, seven million people would be homeless. The general lack of concern about forest fire losses in Canada may be illustrated with another analogy between urban and forest fires. A conflagration which destroys a large portion of a city block is often newsworthy across the nation, but a rather remote forest fire which sweeps over an area greater than that covered by this country's 10 largest cities may arouse little more than local interest.

Figure 1, facing Page 1, depicts graphically the areas of merchantable timber, young growth, cut-over lands, and non-forested lands burned in 1953, as compared with the similar average areas lost during the 10-year period ended in 1952. Such burned area figures are much more indicative of values lost than are the estimated dollar values shown in Tables 1 and 6. Estimates of total losses are not obtained because no attempt is made to appraise such fire losses as damage to soil and site quality, stream-flow, wildlife, or recreation and tourist values. Moreover, the values assigned to certain other losses are exceedingly low.

A good example of this low valuation may be noted in the 1953 figures reported for losses to young growth (see Table 1). Here it is seen that 499,144 acres of burned young growth are valued at only \$1,017,408, or not much more than two dollars per acre. Much of this young growth would not have been old enough to produce seed and, for this and other reasons, a large portion of such burned areas will not be regenerated naturally. Artificial regeneration is expensive. In 1953, costs of re-stocking by planting seedlings in several provinces varied between a low of \$24 and a high of \$65 per acre, or an average of approximately \$45 per acre. This cost is almost 20 times greater than the reported fire losses on many areas which already bore well-established young growth.

 * Census of Canada, 1951, Vol. I; Dominion Bureau of Statistics.

Another noteworthy instance may be seen in the Northwest Territories figures, which show that almost two million acres of non-forested land were burned over. No dollar values are ascribed to the damage thus caused because there is no sound method of assigning values to such areas. However, the loss is very real indeed especially to the native population whose livelihood is seriously affected. When such vast areas of tundra and stunted tree growth are burned there may be no timber loss but caribou and other game are forced to abandon that portion of the country, and those people who are dependent on wildlife face privation, if not actual starvation.

The classification of burned areas by provinces for the 1933-1952 20-year average is depicted graphically in Figure 2 to show the percentages of areas burned which are classified as merchantable timber, young growth, cut-over, and non-forested lands. The percentage of total values lost is also shown. A comparison of the figures indicates the wide variations in percentage values assigned by the different provinces to the broad forest land types. A few of the points which may be noted in Figure 2 are mentioned hereunder.

In New Brunswick, 15 per cent of the total area burned (merchantable timber) accounted for 71 per cent of the total recorded values lost. Compared with values ascribed to other classifications, Manitoba assigned a higher value per acre to young growth than did the other provinces, the record showing that 20 per cent of their total burned area was of this classification, accounting for 40 per cent of the annual loss. Over half the area burned in Quebec was on cut-over lands and the value attributed to this loss amounted to about 16 per cent of the total. On a comparative basis, Alberta placed the lowest value on non-forested land; 41 per cent of the area burned fell into this classification and accounted for only four per cent of the total values reported lost.

A comparative statement by regions of numbers of fires, area burned, and fire-fighting costs plus damage, showing the 1953 increase or decrease in relation to the average for the previous 10 years, and to the previous year, may be seen in Table 4. This statement is included for ready reference purposes to enable the reader to determine some of the more important trends without referring to previous publications. It can be seen, for instance, that the total damage and fire-fighting costs in 1953 were more than \$2,500,000 greater than the average for the previous

decade and showed almost the same increase over the previous year's figure.

Fire Losses on Farm Woodlots

Farm woodlots in Canada, in many instances, are not afforded any kind of organized forest fire protection and a large percentage of fires occurring on these lands go unrecorded. In any event, most of these fires are not reported for inclusion in the annual statistics. In an effort to obtain more comprehensive information regarding the incidence of forest fires in farm woodlots, the Dominion Bureau of Statistics included the following two questions in the 1951 census of agriculture:

- (a) How many fires started in the woodland of this holding during the last 10 years?
- (b) Total area of this farm burned by ALL forest fires during the last 10 years?

Summaries of the answers to these questions were published by the Bureau in "Census of Canada, 1951," Volume 6, Part 1 (see Table 7).

The figures show that a much greater area was burned than had been generally believed -- an average of about 53,000 acres per year. The figures reported are subject to considerable error because of the fallibility of human memory in attempting to recall detailed information of unrecorded events which took place up to 10 years previously, and efforts are being made to spot-check their accuracy in a limited number of subdivisions, such as townships. If it were possible to obtain annual reports from farmers with reference to fires on their woodlots, the figures could be included in the regular forest fire loss statistics. Owing to the dependence necessarily placed on human memory for the 10-year period involved, and to the fact that farms as defined by the Census may include some woodlot areas which are already included in provincial statistics, the figures in Table 7 should not be added to totals noted elsewhere in the bulletin.

MERCHANTABLE TIMBER AND OTHER PROPERTY BURNED BY FOREST FIRES IN CANADA (YUKON AND NORTHWEST TERRITORIES NOT INCLUDED)

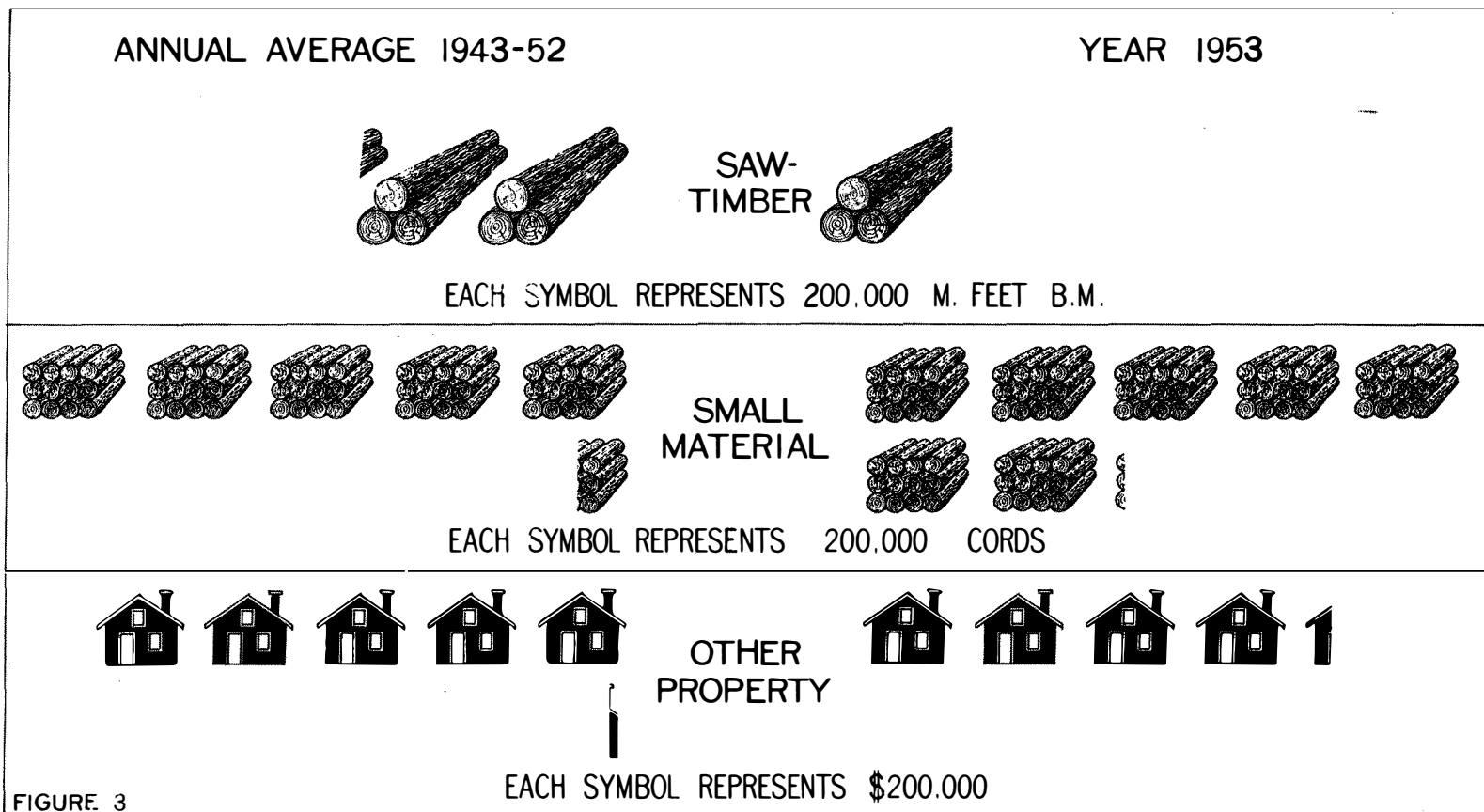


FIGURE 3

FOREST FIRES IN CANADA BY CAUSES

(YUKON AND NORTHWEST TERRITORIES NOT INCLUDED)

ANNUAL AVERAGE 1943-52

YEAR 1953

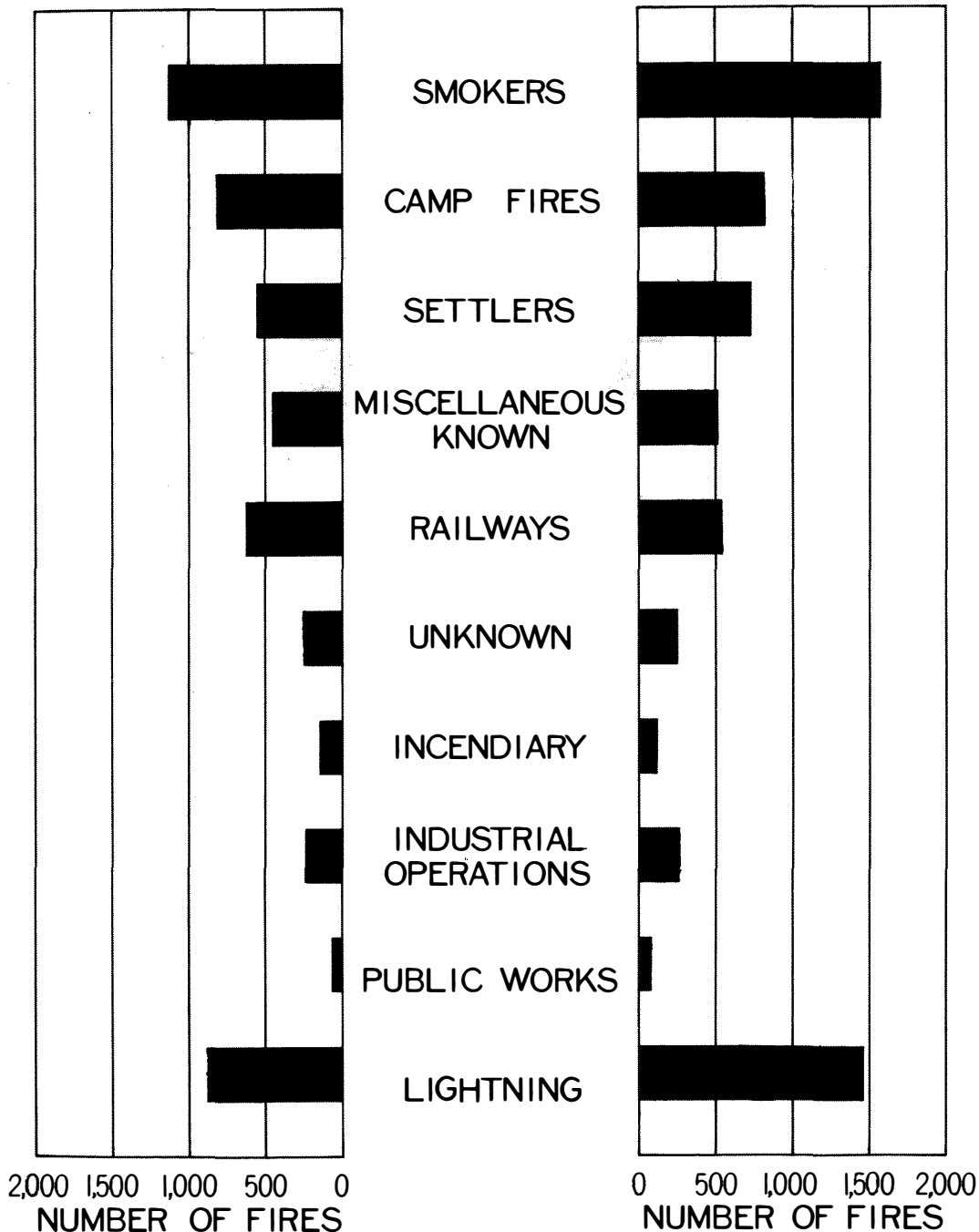


FIGURE 4

Causes of Fires

Of the 10 classified causes under which Canada's forest fires are listed (see Table 2) the largest group comprises those attributed to smokers. One thousand, five hundred and seventy-six fires, or 25 per cent of the 1953 total, were smokers' fires, the greatest number of smokers' fires recorded in any one year. On a percentage basis the figure was exceeded in 1945. Most fire protection officers make every attempt to determine the exact cause of each fire, and sometimes the cause is determined by a process of elimination. Thus it is often impossible to be certain just what smoker's supplies actually caused the ignition. There is no doubt that a discarded lighted match is much more liable to start a fire than a glowing cigarette butt and for this reason the use of matches of any type is forbidden on many woods operations. If all those using the forests for recreation or hunting purposes would abide by the same prohibition, forest fire losses would probably be reduced greatly.

Lightning fires also were numerous in 1953, the 1,467 attributed to this cause being exceeded only by those in 1936 and 1940.

Canada is fortunate in experiencing a low percentage of incendiary fires, having only 124 in 1953, or two per cent of the total, as compared with the previous 10-year average of three per cent. Almost all other countries that keep accurate forest fire statistics report a much higher percentage incidence of fires of incendiary origin, and in some regions well over half the total is attributable to this cause.

Monthly Occurrence of Fires

From year to year there is a wide variation in the percentage of total fires which occur in any one month. During the 10-year period 1943-52, May averaged the greatest number of fires, with 23 per cent of the total, but in 1953, 2,094 fires or 33 per cent of the total, occurred in August (see Table 3). This was double the number of fires which occurred in August in 1952, and more than four and a half times the least number recorded for that month, in 1943. There was an unusually large number of fires in November, 1953, also, the total being 105, as compared with an average of 25. This November

figure was exceeded in 1930 only, when 117 fires were reported in that month.

All agencies do not report the acreages burned by months and no such data are included in this report. The number of fires and acreage burned in any given month could not necessarily be compared directly because a large fire which started, say, on July 31st would be classed as a July fire, although it may have burned for several days in August so that the area burned would be recorded with the August figures.

Legal Proceedings

Of the 201 persons brought to court in 1953 for offences against the forest-fire laws, 185 were convicted (See Table 5). This is considerably fewer than the 10-year average of 275 prosecutions resulting in 248 convictions. Not all offenders apprehended are prosecuted, because some settle out of court by paying for the damage they cause, and in other instances there is insufficient evidence to warrant court action.

Forest fire laws are frequently amended by the provinces and federal agencies concerned, and it is the responsibility of the woods worker or traveller to keep himself informed of the pertinent laws and regulations. Infractions under these laws do not necessarily involve the ignition of a forest fire, but may have to do with activities which would tend to increase fire hazard or make fire control more difficult.

Fatalities

One person in Manitoba and one in the Yukon Territory died through forest fires in 1953. The yearly average for the previous decade was three lives lost. (see Table 5).

Weather Conditions in Relation to Fires in 1953

Newfoundland

No fires occurred in Newfoundland forests in the year 1953 until May. Spring months were cool and rainy. This weather continued until the middle of June, but from

then on it grew warmer and more pleasant. During July interior sections of the province experienced deficiencies in rain-fall up to 50 per cent, although coastal areas reported excesses to the same amount. The most serious fires occurred during June and July, accounting for more than 90 per cent of the total area burned during the year. One small fire occurred in September. Newfoundland's 1953 fire season was one of the best for many years. The total area burned was less than 15 per cent of the average for the preceding four years.

Nova Scotia

Average temperatures were well above normal and precipitation was heavy over most of Nova Scotia during February, March, and April of 1953. Fire incidence and area burned during February and March were the highest for seven years. Rainfall decreased and temperatures were nearly normal for the months of April and May. The fires that occurred in this period accounted for nearly 70 per cent of the total area burned throughout this season. With the exception of the last two weeks in June, the remainder of the fire season was about average. Temperatures were normal, and rainfall, although spotty, was adequate in most areas. Fires occurring from June to October were not large, averaging roughly four acres each. Generally, the season of 1953 was not severe. Fire incidence was less than the previous 10-year average, although the area burned was slightly greater.

New Brunswick

The fire season in New Brunswick in 1953 was not severe. Fire occurrence and area burned were above average, but average fire size was approximately 15 acres, compared with 14 acres during the previous decade.

Rainfall was above normal and well distributed during most of the spring. The greatest losses occurred in the May and June period when 192 fires burned more than 3,500 acres. July precipitation was normal or above, but August and September reports showed general deficiencies in the interior sections. October rainfall was irregular and the general pattern of distribution was similar to the previous month. November was mild and precipitation, although generally normal, ranged from 50 per cent above to 30 per cent below normal in some areas.

Quebec.

The 1953 forest fire season in Quebec was heralded by three small fires in March. The spring weather was marked by above normal temperatures and wide variations in rainfall, the weather turning cool and rainy during the latter part of May. The early summer was warm and although uneven in its distribution, the average precipitation in most areas was above normal. As the summer progressed the rainfall diminished. Ideal holiday weather prevailed throughout the Province -- poor weather for forest fire-fighters unfortunately -- and forest losses were heavy. This condition continued on into the autumn, and early November was exceptionally warm and dry. The 380 lightning fires which occurred accounted for approximately 17 per cent of the total. This was the largest number of fires attributed to this cause in Quebec since these records were commenced in 1929.

Ontario.

A warm spring ended in a rainy spell in the latter part of May and early June of 1953. During the summer the general weather pattern was fair and warm with most of the rains being accompanied by thunderstorms. A hot spell during the latter part of August continued into the first week of September with record high temperatures being recorded in several areas. This was followed by a period of cool weather which brought light rains and some snow in the northern areas. October and early November were exceptionally warm and dry with a resultant increase in both the number of fires and area burned. In early December heavy rains brought the fire season to a close. Although the acreage burned was not excessively large, the number of fires and the high cost of controlling them are indications of a severe fire season.

Manitoba.

With the exception of March and December, fires were reported for every month of 1953. Fires reported in January and February were not serious, but commencing in April the fire situation worsened considerably. Hot dry weather in the northern sections of the province continued until the end of June. July began with cool showery weather, but the second and third weeks were hot and dry.

FOREST FIRES IN CANADA BY MONTHS

(YUKON AND NORTHWEST TERRITORIES NOT INCLUDED)

ANNUAL AVERAGE 1943-52

YEAR 1953

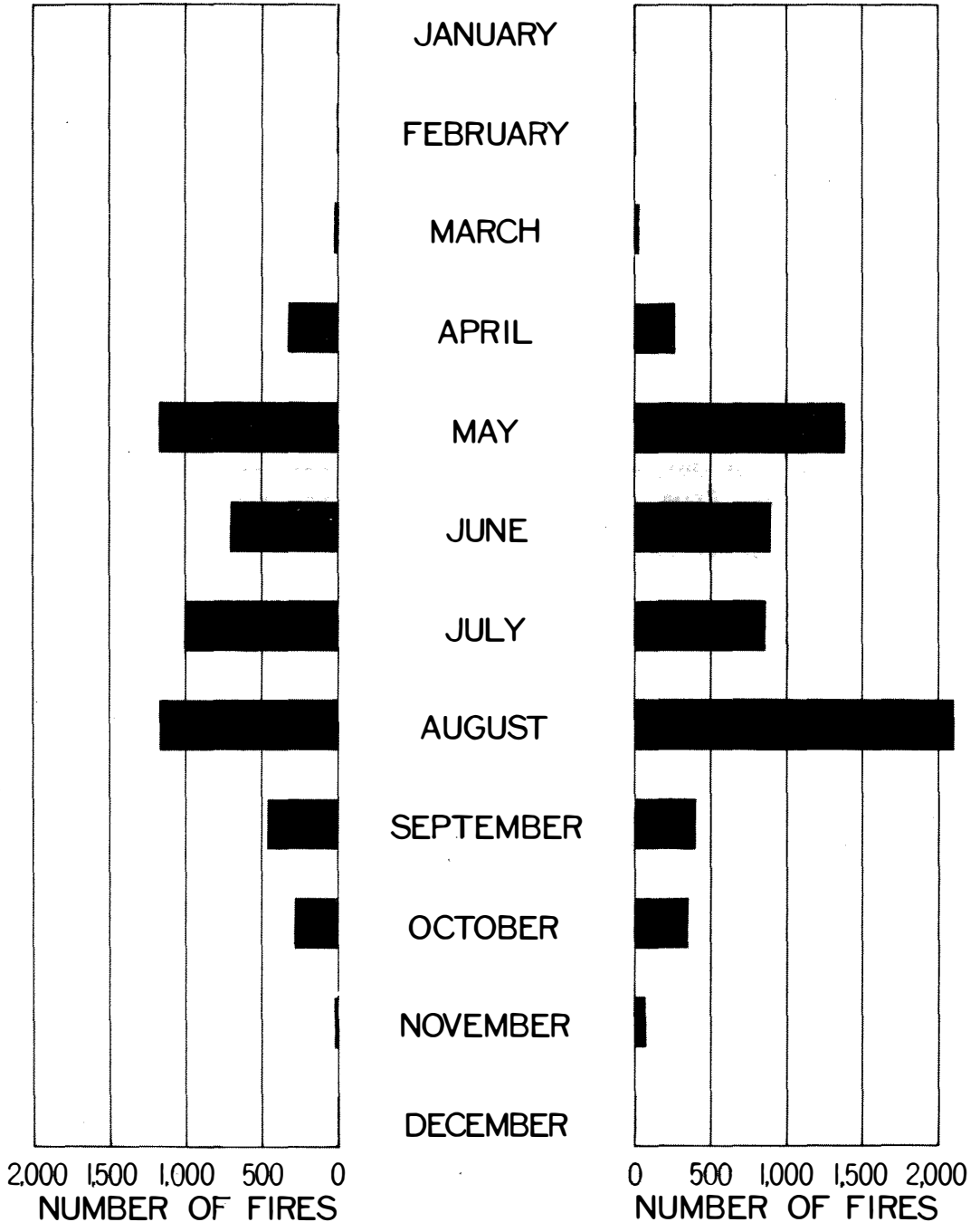


FIGURE 5

August rainfall was inadequate in most sections after the first week. Owing to these dry periods, severe burning conditions arose and fires were numerous. The worst months were May, July, and August. Some 65 per cent of the total acreage lost was burned in May, and all but two per cent of the remainder was burned in the July-August period. Rainfall over forested areas was heavy in September, but some dry spells did occur in October and November. The season ended late in November after snow fell over most of the province.

Saskatchewan

Fire losses in Saskatchewan in 1953 were quite high, exceeding the 10-year average in both numbers of fires and area burned. The season opened in February when two fires occurred. These, however, did little damage and it was not until April that severe outbreaks developed. From the last week in April through May and June rainfall was inadequate in the northern sections. During these months the fire situation grew critical and of the total area lost during the season, 98 per cent was burned in this period. From July until the end of the fire season rainfall was more frequent although spotty. Some dry spells occurred in nearly every month, but fortunately they were not prolonged. October and November were unusually warm and precipitation was deficient by as much as 90 per cent. No extensive fire outbreaks were reported during this time, however.

Alberta

Light snowfall in most areas and a dry spring in the northeastern areas got the 1953 fire season off to an early start. Except in the northeastern section, the spring and summer were cool with above average precipitation. General rains in August reduced the fire danger effectively. Rainfall was fairly heavy in the northern areas during September, and October brought fairly dry weather to most of the province. The November rain and snow did not last and warm weather during December brought two fires.

British Columbia

British Columbia was fortunate from the fire standpoint in 1953. The spring danger was low in all areas with well distributed rainfall. The summer brought lightning fires but also rain which assisted in control. Heavy

rains during late August, early September, and through October kept both the number of fires and the fire loss low.

Northwest Territories

Although the fire season in the Territories was relatively short, it was severe from April to August. Rainfall was light during the first part of the season with corresponding low relative humidities. Local heavy showers in July were not uniform in distribution and fire loss was highest during this month. August was warm and dry, and one-third of the total acreage burned was lost in this month. September brought heavy, general precipitation and ended the fire season.

Yukon

Snowfall was light in the Yukon during the winter of 1952-53. Very little rain fell during the spring months of 1953. This gave rise to a dry spring period which continued until the last ten days of June. Throughout July and August, cloudy weather and frequent rains prevailed over all but the northern sections of the Territory. September weather was average, precipitation being normal in all areas. Fire occurrence for the season was not heavy, the greatest damage being done in the July - August period. The three fires that occurred in July swept over 80 per cent of the total area burned during the year.

TABLE 1

FOREST FIRE LOSSES IN CANADA, 1953
Compared with 10-Year Average 1943-1952

Item	Annual Average 1943-1952(2)	Provinces (1)		
		Year 1953	Yukon 1953	Northwest Territories 1953
Fires under 10 acres number	3,792	4,981	33	26
Fires 10 acres and over "	1,339	1,459	11	39
Total number of fires	5,131	6,440	44	65
Area burned				
Merchantable timber acres	286,911	203,112	2,643	73,511
Young growth "	361,869	499,144	36,602	107,310
Cut-over lands "	205,322	293,874	202	--
Non-forested lands "	680,461	362,245	38,110	1,971,353
Total area burned	1,534,563	1,358,375	77,557	2,152,174
Size of average fire	299	211		
Merchantable timber burned				
Saw timber M ft. b.m.	441,433	184,407	12	84,900
Small material cords	1,071,199	1,423,901	12,167	314,400
Estimated values destroyed				
Merchantable timber \$	1,555,971	2,285,790	6,119	845,475
Young growth \$	962,322	1,017,408	73,204	106,550
Cut-over lands \$	179,227	321,883	202	--
Other property burned .. \$	1,028,318	889,349	1,356	5,250
Total damage	\$ 3,725,838	4,514,430	80,881	957,275
Actual cost of fire-fighting \$	1,774,660	3,679,216	16,222	82,859
Total damage and fire-fighting cost	\$ 5,500,498	8,193,646	97,103	1,040,134
Area under protection sq.mi.	--	1,129,751	40,000	84,000

(1) Includes Federal Lands within provincial boundaries.

(2) Does not include Newfoundland.

TABLE 2

Forest Fires in Canada, 1953, by Causes
Compared with 10-Year Average 1943-52

Cause	Provinces (1)							
	Annual Average 1943-1952 (2)		Year 1953		Yukon 1953		Northwest Territories 1953	
	No.	%	No.	%	No.	%	No.	%
Camp-fires	827	16	833	13	16	37	28	43
Smokers	1,132	22	1,576	25	12	27	1	1
Settlers	562	11	735	11	3	7	--	--
Railways	599	12	554	9	1	2	--	--
Lightning	861	16	1,467	23	4	9	25	39
Industrial Operations	238	5	279	4	--	--	--	--
Incendiary	142	3	124	2	--	--	--	--
Public Works	72	1	87	1	1	2	--	--
Miscellaneous Known	444	9	519	8	4	9	2	3
Unknown	254	5	266	4	3	7	9	14
Total	5,131	100	6,440	100	44	100	65	100

(1) Includes Federal Lands within provincial boundaries.

(2) Does not include Newfoundland.

TABLE 3

Forest Fires in Canada, 1953, by Months
Compared with 10-Year Average 1943-52

Month	Provinces (1)							
	Annual Average 1943-52 (2)		Year 1953		Yukon 1953		Northwest Territories 1953	
	No.	%	No.	%	No.	%	No.	%
January	3	--	2	--	--	--	2	3
February	3	--	10	--	--	--	--	--
March	20	--	39	1	--	--	--	--
April	330	6	262	4	3	7	2	3
May	1,169	23	1,418	22	9	21	12	18
June	692	14	907	14	23	52	14	22
July	1,008	20	859	13	3	7	19	29
August	1,151	22	2,094	33	5	11	16	25
September	452	9	402	6	1	2	--	--
October	275	5	340	5	--	--	--	--
November	25	1	105	2	--	--	--	--
December	3	--	2	--	--	--	--	--
Total	5,131	100	6,440	100	44	100	65	100

(1) Includes Federal Lands within provincial boundaries.

(2) Does not include Newfoundland.

TABLE 4

Fire Season 1953 - Comparative Statement by Regions
Increase or Decrease in Relation to Previous 10-Year Average and to Previous Year

Region	Number of Fires		Area Burned, Acres		Fire-fighting Cost Plus Damage	
	Average 1943-52	Year 1952	Average 1943-52	Year 1952	Average 1943-52 \$	Year 1952 \$
British Columbia	- 138	- 494	- 296,511	- 113,761	- 870,204	- 1,578,027
Alberta	- 107	- 70	- 139,331	- 150,496	+ 938,868	+ 766,355
Saskatchewan	+ 47	+ 31	+ 24,393	+ 116,779	+ 54,479	+ 74,965
Manitoba	- 40	- 150	+ 7,228	+ 14,827	- 15,565	- 55,602
Ontario	+ 249	+ 425	- 107,083	+ 46,388	+ 156,874	+ 955,970
Quebec	+ 1,164	+ 1,653	+ 401,055	+ 518,625	+ 2,854,542	+ 2,708,656
New Brunswick	+ 124	+ 122	- 29,317	+ 1,163	- 280,421	- 11,075
Nova Scotia	- 34	- 10	- 11,772	- 1,820	- 118,772	- 29,024
Newfoundland	--	- 161	--	- 30,184	--	- 182,953
Yukon	--	+ 21	--	+ 45,926	--	+ 68,902
Northwest Territories.	--	+ 28	--	+2,015,050	--	+ 995,957
Other Federal Lands .. +	1	- 7	- 25,404	- 34,342	- 27,619	- 170,490
Canada	+ 1,309	+ 1,339*	- 176,188	+ 367,179*	+ 2,693,148	+ 2,478,775*

*Does not include Yukon and Northwest Territories.

TABLE 5
Fire Season 1953 - Comparative Statement by Regions
Legal Actions; Fatalities

Region	Proceedings Under Fire Laws						Number of Fatalities	
	Number of Prosecutions		Number of Convictions		Ratio of Convictions to Prosecutions		Annual Average 1943-52	Year 1953
	Annual Average 1943-52	Year 1953	Annual Average 1943-52	Year 1953	Annual Average 1943-52	Year 1953		
					Per Cent	Per Cent		
British Columbia.....	39	27	36	24	94	89	1.1	0
Alberta.....	85	58	77	53	91	91	0.2	0
Saskatchewan.....	13	4	12	3	92	75	0.0	0
Manitoba.....	8	4	7	4	87	100	0.1	1
Ontario.....	42	48	37	41	97	85	1.5	0
Quebec.....	24	8	22	8	92	100	0.0	0
New Brunswick.....	43	36	37	36	84	100	0.0	0
Nova Scotia.....	21	9	20	9	95	100	0.1	0
Newfoundland.....	--	7	--	7	--	100	--	0
Yukon.....	--	3	--	2	--	66	--	1
Northwest Territories..	--	2	--	2	--	100	--	0
Other Federal Lands....	--	0	--	0	--	--	--	0
Canada	275*	201*	248	185*	90	92*	3.0	1*

* Does not include Yukon and Northwest Territories.

TABLE 6

Statistics of Forest Fires by Regions, 1953
Shown with Averages for the 10-Year Period 1943-52

	British Columbia		Alberta		Saskatchewan		Manitoba		Ontario		Quebec	
	Average 1943-52	Year 1953	Average 1943-52	Year 1953	Average 1943-52	Year 1953	Average 1943-52	Year 1953	Average 1943-52	Year 1953	Average 1943-52	Year 1953
Fires -												
Total number.....	1,558	1,420	230	123	121	168	268	228	1,271	1,520	1,093	2,257
Caused by lightning.. %	26.6	42.0	4.8	3.3	5.0	16.1	15.0	20.6	18.8	23.5	10.2	16.8
Area burned -												
Merchantable timber.. acres	19,739	2,574	97,391	81,330	14,530	12,286	25,537	24,048	94,504	12,437	13,686	69,578
Young growth..... "	47,606	4,010	146,951	113,809	33,598	88,621	47,438	62,988	29,509	13,928	6,818	214,426
Cut-over lands..... "	50,329	3,595	11,143	1,678	7,477	140	6,327	12,494	19,074	23,313	34,303	250,167
Non-forested lands... "	217,482	28,466	217,688	137,025	74,854	53,805	102,067	89,067	22,805	9,131	1,050	40,311
Total are burned... "	335,156	38,645	473,173	333,842	130,459	154,852	181,369	188,597	165,892	58,809	55,857	574,482
Damage..... \$	825,964	260,650	1,081,893	1,927,063	58,156	94,071	194,118	193,529	577,368	377,998	572,387	1,621,940
Cost of fire-fighting.. \$	519,890	215,000	94,504	188,202	41,436	60,000	57,114	42,138	553,901	910,145	513,122	2,172,225
Total damage and fire-fighting cost. \$	1,345,854	475,650	1,176,397	2,115,265	99,592	154,071	251,232	235,667	1,131,269	1,288,143	1,085,509	3,794,165

TABLE 6 (Concluded)

Statistics of Forest Fires by Regions, 1953
Shown with Averages for the 10-Year Period 1943-52

	Federal Lands												
	New Brunswick		Nova Scotia		Newfoundland	National Parks		Indian Lands		Forest Experi- ment Stations		Yukon	Northwest Territories
	Average 1943-52	Year 1953	Average 1943-52	Year 1953	Year 1953	Average 1943-52	Year 1953	Average 1943-52	Year 1953	Average 1943-52	Year 1953	Year— 1953	Year 1953
Fires -													
Total number.....	245	369	261	227	44	32	30	47	46	4	8	44	65
Caused by lightning.. %	10.6	7.6	0.8	0.4	2.3	18.8	50.0	6.4	17.4	0.0	25.0	9.1	38.5
Area burned -													
Merchantable timber.. acres	4,249	753	1,538	72	3	1,205	28	1,787	3	1	--	2,643	73,511
Young growth..... "	7,080	731	3,928	346	64	340	19	3,834	202	42	--	36,602	107,310
Cut-over lands..... "	19,047	2,171	2,988	231	40	1,387	2	447	29	13	14	202	--
Non-forested lands... "	4,356	1,760	5,113	1,146	448	2,487	1	15,197	1,085	47	--	38,110	1,971,353
Total area burned.. "	34,732	5,415	13,567	1,795	555	5,419	50	21,265	1,319	103	14	77,557	2,152,174
Damage..... \$	296,705	25,506	103,418	10,783	168	2,800	1,762	24,413	946	97	14	80,881	957,275
Cost of fire-fighting \$	75,769	66,547	34,847	8,710	798	6,127	6,395	12,213	8,338	142	718	16,222	82,859
Total damage and fire-fighting cost \$	372,474	92,053	138,265	19,493	966	8,927	8,157	36,626	9,284	239	732	97,103	1,040,134

TABLE 7

FOREST FIRES ON FARMS

Period 1941-1950

(Dominion Bureau of Statistics)¹

Province or Territory	Fires Started on Farms		Total Area Burned - All Fires ²	
	Number of fires No.	Farms reporting No.	Area Acres	Farms reporting No.
Newfoundland	49	40	259	41
Prince Edward Island	80	50	1,112	72
Nova Scotia	340	241	14,250	343
New Brunswick	512	391	40,927	819
Quebec	3,251	2,085	127,114	3,708
Ontario	764	507	18,259	630
Manitoba	946	532	59,247	784
Saskatchewan	1,318	593	94,703	935
Alberta	1,523	885	141,451	1,518
British Columbia	360	261	35,745	434
Yukon and Northwest Territories	2	2	107	2
Canada	9,145	5,587	533,174	9,286

¹ Summary taken from Census of Canada, 1951; Vol. 6, Part 1.² Includes fires originating outside farms.