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THE FIRE SEASON OF 1927 IN IDAHO

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Another "unusual" forest fire season has become memory for the forest protective agencies of Idaho. The memory will long remain a pleasant one, for the season was the most favorable and successful experienced in many years. Following directly the extreme and disastrous 1926 season this one gives courage and renewed faith in the possibility of ultimately making the forests of Idaho a moderate risk of loss by fire. An occasional season such as this one is not in itself any guarantee of success, but it helps to hold the average of costs and losses down and it gives protective forces a chance to bolster up the weak places so clearly brought out by severe seasons.

Precipitation, the weather man's big word for rain and snow, was the key to the situation in 1927. The fall of 1926 was wet. The winter snow depth was somewhat greater than average and far in excess of that of 1926. It melted slowly, and in the higher country, at least, some of it remained on the ground far later than usual. Spring rains and snows were unusually copious and extended late into the season. One storm at the end of May delivered from one to four feet of wet snow in the higher mountains of the Salmon and Selway River drainages, with results disastrous to song birds and young grouse and with substantial damage to some of the mountain trails and roads. The monthly record of rainfall, as kept at the Northern Rocky Mountain Forest Experiment Station near Priest River, is enlightening. It is quoted below, together with the record for 1926 and the normal or average for that station:

	April	May	June	July	August	September
1926	0.70	2.06	0.85	0.16	4.24*	2.40
Normal	1.92	2.21	1.74	0.90	1.34	1.73
1927	1.29	2.71	3.23	0.76	1.52	7.50
Departure from normal 1927	-0.63	+ .50	+1.49	-0.14	+0.18	+5.77

* All came after August 15.

The figures show not only an abnormal amount of rainfall in four of the six months, but, what is more important, a remarkably good distribution of it through all of the fire months except July, which was slightly deficient. General storms in early August brought relief from the effects of the July

The usual costly fires resulting from spring slash disposal and land clearing failed to materialize and but very few fires from any cause were reported prior to July 20. Those that did start were easily controlled and covered but little area. The last 10 days of July were conspicuous because of many thunder storms in the mountains. During this period, lightning started more than 200 fires in North Idaho, which were found and put out by the protective forces. It is known that during this time, many other lightning fires started under such unfavorable burning conditions that they went out before being reached by the control forces and were, therefore, not reported.

Two of these lightning fires, one far up toward the head of the Selway River, the other in the Lochsa drainage reached areas of about 800 acres each, and were controlled at considerable effort and cost. Being in areas that were naturally lightly timbered or which were previously burned over in 1919, the loss was very small.

Throughout the month of August, and during early September, thunder storms with violent electrical discharges were of unusually frequent ocurrence, and great numbers of lightning fires resulted. But few of these became threatening because of frequent rains and the prevalence of cool, cloudy weather.

Two fires in lumbering operations, one in the Palouse region, the other just northeast from there, covered more than a thousand acres each, chiefly because of the presence of logging slash. One of these fires was caused by lightning, the other probably came from the logging operation. Coming rather late in the season at a time when all other fires were being easily handled, they furnish a striking example of the danger created by undisposed-of slashings.

So far as they are completed and available at this time, the fire statistics for the season are given below. Further checking and compilation of the records will make only very slight changes. Losses are but a small fraction of those sustained in 1926.

Causes	No. of Fires, 1927	
Lightning	1206	
Railroads	50	
Camp Fires	94	
Smokers	99	
Brush Burning	35	
Incendiary	13	
Lumbering	55	
Miscellaneous	19	
Unknown	12	
Totals	1,583	1926--1,596

	Timber Burned M Feet BM	Young Growth Killed Acres	Damage to logs Improvements Dollars	Approximate Total Damage Dollars
National Forest	1,236	653	0	8,100
Other lands	363	1,370	2,360	7,355
Totals	1,599	2,023	2,360	15,455

	Net Total Acreage	Area Burned Acres	Percentage Burned 1926	Percentage Burned 1927
National Forest	19,072,000	5,531	1.2%	0.02%
Other lands	4,009,000	2,120	2.7%	0.05%
Totals	23,081,000	5,651	1.5%	0.024%
		336,662 (1926)		

It will be noted that the number of lightning fires is great and that the percentage of them is very high. This percentage is greater than in any other year in the twenty years of forest fire records. Like the sunshine and the rain, they will no doubt continue to appear each summer, but in numbers varying with the drouth and the number and violence of electrical storms. Because of them, the forest protective agencies of Idaho may always expect to have a considerable number of fires to suppress, and must be prepared at the beginning of each summer for supreme emergency. Failure to be fully prepared in any one season may result in disaster which will wipe out the good work of many preceding years. A record carefully kept for the National Forest lands in Idaho north of the Salmon River shows that about 88 per cent of all fire damage in the last 20 years occurred in the three extreme seasons, 1910, 1919, and 1926. It is futile to protect a young tree for 6 years, or 10 years, or 20 years, and then see it burn. Protection, to be effective, must go through until the crop matures. To falter is to fail.

Each disastrous season has initiated a substantial strengthening of protection organizations with gratifying results. The season of 1926 was no exception in that respect, and it is safe to say that all organizations took the field in July, 1927, stronger than ever before. The National Forest force in North Idaho was augmented by 75 fire guards in excess of the number employed in 1926. Equipment built up by the several organizations during the season to combat the fires of 1926 was more nearly complete and ample than ever before. More than usual effort was put into the training of men in advance for the details of fire control work. During the quiet season of 1927, the forces in the woods completed many miles of needed trails and telephone lines that will help to speed up action on future fires.

The losses in 1927 are the smallest ever suffered in the twenty years of record, and the cost of fire control is likewise relatively small.

The wet fall of 1926 and the entire season of 1927 have been most favorable to reproduction on the burned areas. Fortunately, both seasons were blessed with fairly good seed crops of the more valuable forest trees, and many vigorous seedlings have become established in the burned areas at the close of 1927. During the fall of 1926 and the spring and fall of 1927, the Forest Service planted 4740 acres, more than three million trees, in areas so severely burned that natural reproduction would be a very slow process. Because of favorable weather conditions, a high percentage of survival is expected on these plantations.

Special fire weather forecasts were formulated throughout the season by the U. S. Weather Bureau through its local office at Spokane, Washington. These forecasts were available to all interested agencies and were often helpful in giving warning of approaching lightning storm or drouth conditions. Weather data are now being collected at several specially equipped forest stations in

northern Idaho and wired daily to the Weather Bureau office at Spokane in an effort to make possible more localization of the forecasts. It will be several years before the full effect of this work will be realized. It is encouraging that a promising start has been made. Rain gauges have been installed and are giving summer records at many forest guard stations in the mountains. The building up of an efficient weather forecasting service is a matter of years rather than one of weeks or months.

At each of its fire lookout stations, the Forest Service is collecting detailed information in regard to lightning storms. For several thousand storms, the time of occurrence, course of travel, percentage of lightning strokes to ground, comparative amount of rainfall, and some other details have been recorded. These data are carefully compiled and studied, and they have already yielded considerable valuable information, some of which it has been possible to apply to the problem of preparing for lightning fires. As yet, there seems no probability of preventing lightning fires. Warnings are issued several hours in advance of most of the storms, and zones of special lightning danger are fairly well defined so that special provision for their protection can be made.

An airplane forest patrol was again placed in service from the Spokane Airport. It was badly handicapped by late arrival and unsuitable character of the planes. Under such conditions, too much should not be expected of the air patrol. It seems capable, however, of further useful development in fire control.

An interesting and promising side issue of the air patrol work was the photographing from the air of about 130 square miles of forested area just south of Grangeville. The photographs, some 600 in all, will be used to build up a map of the area for use in fire control. Aerial photographs taken vertically with a special camera from about two miles above a forested area show drainage, culture, and forest cover in remarkable detail, and promise ultimately to play a very important part in forest mapping.