Fires that burn plants, classified three ways: ground fires; which burn the humus layer of the forest floor but do not burn much above the surface; surface fires; which burn forest undergrowth and surface litter; and crown fires; which advance through the tops of trees.

Most forest fires result from human carelessness or arson, but some are started by lightning. Such factors as temperature, humidity and rainfall determine the combustibility of the forest.

Certain fires are considered a natural part of the ecosystem and complete fire suppression may allow fuel to accumulate increasing the potential for catastrophic fires. In some wilderness areas lightning-caused fires are allowed to burn under close surveillance.

Foresters sometimes ignite fires under controlled conditions to remove unwanted debris following logging to favor tree seedlings or to keep fuels from accumulating. Since most grasses and shrubs grow well after fires and animals are attracted to the new growth prescribed fires often benefit both wildlife and livestock. The mosaic of vegetation that results from frequent fires favors a rich diversity of plant and animal life.