

Vol. 1 No. 2, August 1980

*Methuselah ate what he found on his plate,
And never, as people do now,
Did he note the amount of the calorie count;
He ate it because it was chow.*

*He wasn't disturbed as at dinner he sat,
Devouring a roast or a pie,
To think it was lacking in granular fat
Or a couple of vitamins shy.*

*He cheerfully chewed each species of food,
Unmindful of troubles or fears
Lest his health might be hurt
By some fancy dessert;
And he lived over 900 years.*

--author unknown

The Impact of Mt. St. Helens on the Food Supply

The Pacific Northwest makes an important contribution to the nation's food supply through agriculture and processing of food. The cataclysmic eruption of a volcano in this rich food basket has unavoidable effects. Fortunately, in most cases the effects are likely to be minor and transitory.

Fish and Wildlife

Estimated casualties
5,000 elk
6,000 deer
400,000 fish
11,000,000 fingerling salmon

Although these losses may have some impact on local sportsmen's larders, they will have a negligible impact on commercial fishing. Of greater long term concern is the abrasive affect of the glass-like ash on the gills of fish. A heavy burden of suspended volcanic matter in streams and rivers can be a continuing hazard to fish.

Agriculture

Volcanic ash is having very little effect on the cattle business. Destruction of hay has led to competition among dairies an feed lots thereby driving up prices. But the animals don't seem bothered by incidental contamination of the hay by the ash.

Ash composition
63% silica
20% alumina
6% calcium oxide
4% iron oxide
4% sodium oxide
1% potassium oxide

The ash does not contain large amounts of soil enriching nutrients, so it is rated as medium-to-low in fertility. Its principle effect on the soil will be to lower its moisture-holding ability.

Most of the very large Northwest wheat crop is withstanding well any volcanic debris. Even though the chemical action of the ash is negligible, its very abrasive quality may shorten the useful life of harvesting equipment. However, this equipment customarily operates in clouds of dust and grit.

The situation is quite different in the case of berries. It is estimated that about half of the berries will be lost from the thousands of acres hit by the ash fallout. This is particularly true for the fragile raspberries, boysenberries and loganberries.

Processing and Packing

Berries brought in from the fields can be washed adequately to free them from volcanic debris (as measured by residual iron).

	Residual iron (ppm)		
	1980 crop unwashed	1980 crop washed	Old crop Washed
Raspberries	38	7	12
Strawberries	20	8	7

However, abrasion of the berries leaves many unsuitable for packing as whole berries. These may be used for juice, jellies and such.

All food processing plants in the ash fallout area must contend with varying amounts of swirling dust and ash in parking lots and surroundings. Inevitably some of this finds its way into the plants and adds to abrasion on bearings and other moving equipment parts. Also, filters must be cleaned more frequently. The fallout is particularly annoying where commodities and products are traditionally stored in large open tanks, e.g. pickles.

Marketing

Immediately after the May 18 eruption, there were a number of shipping problems delaying the movement of materials. This was a short term problem as far as highways were concerned. Of much greater importance was the blockage of the Columbia River by 51 million cubic yards of volcanic debris. This temporarily halted the outflow of wheat and timber. This trade amounts to about \$3 billion annually. The river is now reopened to a reduced volume of ship traffic.

In addition to the production and distribution problems cited above, there are social effects. Heavy ash fallout in the Portland and coastal areas has reduced outdoor activities. Consumption of picnic and barbecue items such as potato chips is off in these areas.

Summary

The growing of food is notoriously sensitive to bad weather and other mishaps. Although some companies and individuals may be acutely affected by the eruption of Mount St. Helens, the Pacific Northwest food industry will by and large look back on it as a minor disturbance.