

What exactly happened in Salem, 1692?

Theory #1:

The Ergot Fungus

When Linda Caporael began nosing into the Salem witch trials as a college student in the early 1970s, she had no idea that a common grain fungus might be responsible for the terrible events of 1692. But then the pieces began to fall into place. Caporael, now a psychologist, soon noticed a link between the strange symptoms reported by Salem's accusers, the young girls, and the hallucinogenic effects of drugs like LSD. LSD is a derivative of ergot, a fungus that affects rye grain. Ergotism, ergot poisoning, had played a role in other outbreaks of bizarre behavior, such as the one that afflicted the small French town of Pont-Saint-Esprit in 1951.

But could ergot actually have been the culprit? Did it have the means and the opportunity to wreak havoc in Salem? Ergotism is caused by the fungus *Claviceps purpurea*, which affects rye, wheat and other cereal grasses. These crops were all very popular in Salem. When first infected, the flowering head of a grain will spew out sweet, yellow-colored mucus, called "honey dew," which contains fungal spores that can spread the disease. Eventually, the fungus invades the developing kernels of grain, which turns the grain into potent chemicals. The chemicals affect the central nervous system and cause the contraction of muscles, confusion, impaired speech and thoughts, and can even cause hallucinations.

hallucination (hall-OO-sin-ashun):
an experience involving the
perception of something not present

Toxicologists now know that eating ergot-contaminated food can lead to a convulsive disorder characterized by violent muscle spasms, vomiting, delusions, hallucinations, crawling sensations on the skin, and a host of other symptoms, all of which, Linda Caporael noted, are present in the records of the Salem witchcraft trials. Ergot thrives in warm, damp, rainy springs and summers. When Caporael examined the diaries of Salem residents, she found that those exact conditions had been present in 1691. Nearly all of the accusers lived in the western section of Salem village, a region of swampy meadows that would have been prime breeding ground for the fungus. At that time, rye was the staple grain of Salem. The rye crop consumed in the winter of 1691-1692, when the first unusual symptoms began to be reported, could easily have been contaminated by large quantities of ergot. The summer of 1692, however, was dry, which could explain the abrupt end of the "bewitchments." These and other clues built up into a circumstantial case against ergot that Caporael found impossible to ignore.

