

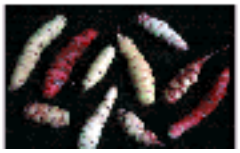


Plants and Superstitions

By Jennifer L. Hemberger

For many years plants have played a large part in superstitions. Although, they are not so much believed now, as they used to be. They were used to help one's fortune, wealth and fertility. It is amazing that bread was ever eaten; there were so many superstitions about it. It was used to aid in all of these things and many more, It is ironic, however, that the one thing they worshipped and used to keep harm and disease away made them ill and killed some of them. When all of this happened they blamed another superstition, which was witchcraft. "Almost all of the witchcraft misunderstandings were caused by Christianity's persecution of those who refused to abandon pagan beliefs" (Zolar, 1995), but not in the case of the Salem Witch trials.

In 1692 superstitions somehow became the way of thinking. The misuse of it led to the executions of many innocent people in this country. Witchcraft was the crime, for which they were wrongly accused. Fact Net Inc. (see Internet Source) defines superstitions as "Beliefs held despite evidence. They are based on the belief that some people, Plants, animals, stars, words, numbers or special things have magical powers, which contradicts what we know about the world."

A mysterious illness overcame Salem, Massachusetts. Thrashing around, moaning, babbling, and crying made up what were called "convulsive fits," which suddenly occurred in eight girls daily. Hallucinations were also a part of their fits. (see Internet Source). Everyone was terrified. Doctors came to visit, but they did not know much about disease and medicines at that time. One doctor questioned the idea of witchcraft and soon rumors spread that there was a witch in town, or maybe even a group of them were possessed and had cast spells on the girls, Ignorant people began witch-hunts. Anyone who's name was called out during the girls' fits were sent to jail and sat there for three months from the first one taken in, until the trials began, None of those accused had anything in common except the fact that the girls had cried out their names. Their races, religions, and social classes were all different. Those who continued to plead innocent looked forward to their trials for a fair hearing. "To the more intelligent of these it was preposterous to suppose that the trials, conducted by the best minds in Massachusetts, would proceed on the same dream-like plane as the examinations, that men and women of sound mind and good repute would be condemned on the basis of the fancies of young girls. Massachusetts as they knew it was a saner place than that" (Starkey, 1949). Or so they thought, (see Internet Source; Starkey, 1949).

What became known as the Salem Witch trials was the largest witch panic to occur in the United States. These trials were conducted much differently from that of any other trial before. "The examinations were the trial; records were not looked at as hypotheses to be tested, but proven facts; the only new business was the testimony and the deliberations of the jury" (Starkey, 1949). The governor assigned judges to do touch tests. This was done by having the accused touch the girl during one of her fits. If she stopped when they touched her, that person was labeled as guilty. Several lives were spared, simply by confessing they were witches, when they really were not. Nineteen of the accused refused to lie and were hanged. (see Internet Source; Starkey, 1949).

One girl, Betty, who experienced these fits, would sometimes have sudden weeping fits. But this suddenly got worse. She started becoming absent-minded, which isn't normal for someone so young. She was forgetting errands, chores and became unable to concentrate. At one point, her mother found her "sitting at her needlework, hands poised but motionless, her eyes stating with uncanny fixity at an invisible object" (Starkey, 1949). Another girl, Abigail, who was progressively worse than Betty, would go on babbling and making rasping sounds. She would get down on her hands and knees and begin barking and running under furniture. She sometimes would fall into convulsions thrashing and shrieking as if "suffering from torments of the damned" (Starkey, 1949).

Some of the parents believed these girls were doing these things to rebel, These parents turned to whippings before beginning their witch-hunts, The whippings of course, did not help and a minister was called into town to help, He made them fast for a day then made them go through prayer therapy. The results didn't prove much. Some of them sat there and didn't react in any way. "Others shrieked as if they had been touched by a hot iron at every sound of a sacred word" (Starkey, 1949). A similar example of this epidemic, but on a much larger scale occurred several times over in the Middle Ages. They were always like the Salem incidents in the "wake of stress and social disorganization, after wars or after an epidemic of Black Death". (Starkey, 1949).

There have been several explanations suggested for this epidemic, but the possible explanation in my reading is compulsive ergotism. Ergot is a poisonous microscopic fungus. It grows on crops, especially rye which is used to make bread, and could cause fits and hallucinations. (see Internet Source). "... Ergot alkaloids are arguably the oldest microbial bio-pharmaceutins. They may have played a role in both the Mysteries of Eleusis and the Salem witch trials" (Bennett, 1999). Midwives used them for centuries. These alkaloids were the first effective obstetric drugs. But they are well known for their toxicity and psychoactive effects. (Bennett, 1999).

There are several effects or characteristics of ergot poisoning after eating grains that were contaminated. A person may begin to have burning sensations, which are caused by the reduced size of blood vessels. Sometimes they would experience hallucinations and bizarre behavior. All of these could be interpreted as bewitchment or possession by the devil (Bennett, 1999).

Ergot is formed by "spores, alighting on rye flowers, germinate, and produce hyphae which destroys the

young ovary of the rye, eventually forming a hard, seed-like structure termed the sclerotium" (Bennett, 1999). Cold, wet weather helps this fungus to grow. The worst epidemics occur when there is a rainy spring following a severe winter, then a warm, wet summer, After milling grain that has been contaminated, the alkaloids remain in the flour. The ergot alkaloids can withstand baking and boiling. Bennett, 1999).

Researchers say there are two forms of ergot poisoning - gangrenous and convulsive. Gangrenous eventually stops blood flow. Limbs swell, the victim gets hot and cold flashes. The formication starts with itching and tingling skin. This eventually leads to dry gangrene, which attacks the nails, toes fingers, and limbs, They become black and eventually mummified and the parts fall off the body without a loss of blood. Convulsive ergotism causes muscle spasms; "fits" or "convulsions"; and massive, nervous disfunctions, Between the two, the afflicted also suffer from insomnia and have terrible appetites. Both cause hallucinations, confusions, and temporary or permanent psychosis. "Those that survive may have mental impairments". (Bennett, 1999),

"All of the major cereals of the world (barley, corn, millet, oats, rice, rye, sorghum, triticale, wheat) are subject to ergot Infestations". Even the U.S. cereals are still not free of ergot. The amount of ergot allowed by U.S. standard is 0.3%. In a survey done between 1985-1991 ergot alkaloids were found in 118 of 128 samples of rye flour and 68 of 93 samples of wheat flour, That's scary. (Bennett, 1999).

Spanos (1983) argues against the explanation of ergotism, but he gives no other explanation. He states that there were never any gangrenous symptoms and goes on to explain that there were no convulsive symptoms either. Spanos (1983) says, "The facts of the Salem Crisis can be interpreted much more plausibly in terms of political and economical considerations that operated in Salem at that time." He also claims that there is a lack of evidence for crop failure or food shortage. He points out there were fewer children under the age of 15 among those at Salem than the typical epidemic of convulsive ergotism, He states that 67% were males and 70% of these people were not under 15 years of age, Matossiah (Spanos, 1983) points out, "If these symptoms [of ergot poisoning] were present, they may not have been reported because they were not commonly associated with bewitchment." (Spanos, 1983).

Spanos (1983) claims that these victims had an advantage by maintaining their demonic possessions. I am assuming he believes that they were faking their symptoms, As victims of satanic influence, Spanos says they received sympathetic attention and it brought them up from a social position of little influence to one of power. They became the center of the community's attention. Spanos, 1983).

In conclusion, it is not proven that the Salem epidemic was caused by ergot poisoning, but there are plenty of stories and facts to support the idea. If Spanos wants to believe that the victims were not actually victims, despite the evidence, then that's fine, but I do not see why he would think this illness to be fun or even an interesting way of getting attention. Besides, where would they hear about the exact symptoms of the Middle Ages. "Scientists like to find empirical explanations to account for past superstitions and prejudices. Thus the alleged magical and healing powers of witches can be reevaluated as an early skill in pharmacognosy, including knowledge of ergot" (Bennett, 1999). "Only in the last few

decades has it been possible to take pride in the limited and careful use of ergot products in medicine (e. g., for the treatment of migraines and to assuage post partum hemorrhage)" (Bennett, 1999). Scientific thinking has almost swept away the ignorance of superstitions that once kept people from learning about out world. Like in the case of the Salem Witch trials "When minds are poisoned by the ignorance of superstitions, terrible things happen" (see Internet Source).

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Return to Home Page
