

CHAPTER 8.THE CELTIC FRINGE: WALES, SCOTLAND,
THE ISLE OF MAN, THE ORKNEYS AND THE SHETLANDS

An Act of Union in 1536 incorporated Wales into the English system and another of 1543, whilst giving Wales a separate system of law courts by grouping the twelve shires into four circuits, required the speaking of English within all government systems.¹ The Reformation, whilst it caused discontent amongst the populace because of the loss of their religious protections, did not instigate any real protest at the loss of the Catholic religion. Intellectually the Reformation had little impact because the common people spoke only Welsh and if their clergy wished to maintain contact with their parishioners, then they had to speak Welsh.²

The Welsh population in the sixteenth and seventeenth centuries numbered less than 280,000 and they were mostly occupied in animal based agriculture, especially cattle raising. Wales was not an easy country to farm because of the generally low temperatures and a late, short and slow growing season. This climatic situation influenced the lowlands and uplands as the grass, crops and livestock were subject to poor and badly drained soils. Crop growing was difficult due to the hilly terrain and the ever present dampness.

The Welsh people as a nation had a strong popular belief in witches, "dewines" or "gwarch", and magic but, as yet, published

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1. Williams, D. A Short History of Modern Wales, London, 1961, p. 10 - 13
 2. *ibid.*, p. 17 - 18, Vaughan-Thomas, W. Wales A History, London, 1985, p. 147 - 152

material on witchcraft in Wales has not been extensive enough to indicate an overall picture.*

Flintshire is, however, a slight exception. Recent research has indicated that, despite the widespread popular belief in witchcraft and the influence of Puritanism, no witch hunt occurred in seventeenth century Flintshire.³ Flintshire is located in the northeast of Wales and it borders on Cheshire. During this period, the region was one of the better farming regions of Wales, with mixed farming on rich loam soils. Most farmers had three or four dairy cows but emphasis was mainly on sheep-corn husbandry. Crops were grown in a three field system and included oats, barley, rye, wheat, peas, vetches and buckwheat and heavy manuring ensured good crops. Pigs were kept for bacon and householders did not lack for geese, chickens and ducks. Fodder crops included hay and straw which were uncommon items in the rest of Wales. New crops and farming techniques in Flintshire's open lowlands were widening the gap between the rich and the poor within the county.⁴

Charles Hughes was accused by Gwen Evans of maiming her cattle. The incident is related by Hughes ap Edward of Llanhasa, Charles Hughes' father. Apparently Gwen came to tell Hughes that he should not defend his son Charles because Gwen's husband, John Evans, had been to a fortune teller who had told him that the person responsible

3. Gwynn Williams, J. "Witchcraft in Seventeenth Century Flintshire", Flintshire Historial Society Publications, Vol. 26, Part I, p. 21, 27

4. Thirsk, J. (ed.) The Agrarian History of England and Wales, IV, 1500 - 1640, Cambridge, 1967, p. 113, 131

Bowen, E.G., Wales A Study in Geography and History, Cardiff, 1960, p. 86

* The current rise of nationalism in Wales has encouraged many to publish their research in Welsh which makes acquisition of information for English speakers, even more difficult. A number of people in Wales are currently researching Welsh witchcraft but my attempts to communicate with them have met with no response.

for maiming the cattle was a neighbour "one end of the first tree of whose house laid upon the chymney". As Charles Hughes's houses fitted this description, she suspected him of maiming her cattle.⁵ A number of Charles's neighbours and friends banded together to state that they had never heard that Charles did hurt or maim Evans's or anyone else's cattle and were of the opinion that John Evans had wrongfully accused him.

No indication of the harm done to the cattle appears in the transcript other than the word "maim" which is to mutilate or cripple. The whole episode is really based on the inability of John Evans to keep a bargain with Charles Hughes, wherein Charles Hughes paid Evans 20 shillings to erect three "bayes" in a building and with which Evans failed to comply. The only plants which cripple cattle are bracken, ergotised grains and tall fescue grass but the case symptoms are too vague to be analysed with any surety.⁶

The case against Henry John James was brought in a series of depositions on 19th September, 1658. John Piers stated that in 1637 Raphe Hughes told him that his father-in-law, John Winn Edwards, had asked Raphe to go and get Henry John James as he believed that James had bewitched a couple of oxen of Edwards. Piers went to James and asked him to bless the two oxen. James blessed them and, despite the fact that the oxen had been unable to stand, they recovered and were well again.

Peter ap William concurs with this description as does David ap Richard, the head husbandman of John Winn Edwards. David provides a great deal of information concerning the oxen and says that at

5. Wales 4/993/5/7-8, Gwynn Williams, J., op. cit., p. 27 - 28

6. Everist, S.L. Poisonous Plants of Australia, London, 1981, p. 777, 803, 320-322

Easter twelve months previously, one of the oxen fell down on his knees but was punched and goaded to its feet and ended the day's work. Next day, however, the two lead oxen, of which the previously sick oxen was one, were slack and weak and did not work well. The next day they were even worse and refused food so that they were bewitched, according to David. The oxen remained ill for two days and still did not eat. John Winn Edwards had heard that James was at his house when the oxen sickened and James and Edwards's wife had fallen out about some money owed James. David went to Raphe Hughes's house as Edwards had asked him to go there and ask Raphe to send for James to bless the oxen. Piers was at Hughes's house when David arrived and Piers eventually persuaded James to go and bless the oxen and the beasts began to mend. After a week the oxen were working again.

John Browne stated that he had known Henry John James to be a reputed sorcerer and that, about twelve years ago, a hog of his father's had gone into James's garden and fell very sick after it had been turned out and would not feed on corn or anything until James blessed it and then it was well again.⁷

Working animals collapse at work when they have eaten field stachys. The symptoms occur only after the animals have been worked and are caused by an accumulation of toxin in the blood. Rest brings a halt to all the symptoms but recovery is only temporary.⁸ Another exercise-induced condition is due to perennial rye-grass but recovery rates from this poison are few.⁹ The pig was more than likely

7. Kimmel MS 1078 No. 5, 8, 9, University College of North Wales; Gwynn Williams, J. op. cit., p. 28 - 30

8. Everist, S.L., op. cit., p. 387 - 388; McBarron, E.J. Poisonous Plants, Melbourne, 1963, p. 45

9. Everist, S.L., op. cit., p. 323 - 326; McBarron, E.J., op. cit., p. 15; Rose, F., Grasses, Sedges and Rushes, London, 1966, p.37

affected by something it consumed in James's garden. The animal would have recovered even if the blessing had not been forthcoming.

Anne Ellis of Penly was accused by Edward Ffoulke on 6th June, 1657. He stated that he was sure Anne was responsible for the condition of his calf which last Michaelmas was not well. His wife saw it first on the Monday and the calf was so ill it could not eat anything and was still ill on Thursday when some of his neighbours remarked "God send, noe one hath looked on him with an ill Hart" and he went to see Anne on Friday. She was not home but the calf remained ill until twilight that evening when he went to look at it and the calf lowed. On giving the calf grass, it ate it. Anne came the next morning and blessed the calf and his cattle and then went into Ffoulkes's home for a meal.¹⁰

Susan Addams claimed that about last midsummer she went to the mill leaving her daughter to milk the cows. Prior to this her daughter went to Roger ap Shone's house, where Anne lived, for fire and when asked by Anne for milk had said that none could be spared. On arriving home she found that a calf which had been weaned and had resided in the next field was suckling its mother and the girl took it away. The cow fell sick for three weeks but when Anne passed the house and Susan told her of the cow's illness, Anne blessed the cow and within an hour or two the cow began to eat as well as she ever had.¹¹

Gwen Hughes stated that she had known Anne for eight years and that people gave her much when she went begging because they were afraid that she might hurt them or their cattle as several of some of

10 Gwynn Williams, J., op. cit., p. 31 - 32

11. ibid., p. 32

her neighbours' cattle had fallen strangely ill but had recovered after Anne went to them.¹² Anne confessed to all the occurrences stated in the depositions against her and was committed to gaol but escaped the constable.¹³

The agriculturally orientated depositions were probably not as conclusive in bringing Anne to trial as were those depositions recording her bewitchment of people. Nevertheless, the case is important because it is one of the rare Welsh instances of witchcraft, which has been recorded, and is included because it highlights the pettiness of accusations which led to convictions of individuals for witchcraft practices. Both the Addams and the Ffoulkes cases cite natural behaviour amongst animals. A mechanical injury to Ffoulkes's calf was entirely in keeping with the symptoms and Anne was used as a scapegoat for these occurrences.

The cases for the Isle of Man are much more conclusive. Whilst small, the Isle of Man supported a population engaged in lowland and upland farming where crofting on isolated farmsteads was the general pattern of settlement. The uplands supported hill farms above the glens and on the lower slopes of the ridges. The plateaux were well farmed with farmsteads surrounded by small fields with hedges and trees. The lowlands supported farms based on sandy soils but it was on the southern lowland that the island's best arable farming country was located. Coastal settlement supported trade between the mainland and Man and, during the seventeenth century, trade with Galloway and Cumberland-Lancashire was very profitable.¹⁵

13. *ibid.*, p. 35

14. Birch, J.W., "The Isle of Man" in Mitchell, J.B. (ed.) Great Britain Geographical Essays, Cambridge, 1962, p. 457

15. Craine, D. Manannan's Isle, The Manx Museum and National Trust, 1955, p. 20; Birch, J.W. in Mitchell, J.B. (ed.) *op. cit.* p. 458 - 462

Elizabeth of Kirk Arbory had many accusers. Catherine Norris of Knock Rushen swore that she had been unable to rear a living calf for twelve years nor make butter and cheese right and she thought this was due to Elizabeth of Kirk Arbory's frequenting the house at Knock Rushen and using witchcraft and sorcery there.¹⁶ The mistresses of Scarlett, Knock Rushen and The Friary believed Elizabeth was a witch of charms who had cast spells upon their cattle, crops and churning. They had not been able to make butter and cheese well for a long time and therefore scratched Elizabeth's face to stop the spells. They claimed before the judges that after this they were able to make good butter and cheese and were prospering.¹⁷

Butter and cheese making were crucial aspects of the farm economy both for home consumption and for sale. Bennett Lane was prepared to admit that the cause of her milk quality and its inability to be seethed was due to the fodder of her beasts. Milk output falls after consumption of brassicas such as broccoli, kale, cabbage and brussel sprouts and the effect of the plants is increased when cattle consume matured plants and plants where secondary growth or flowering has occurred.¹⁸ Milk production is also affected by insufficient fodder, undue stress and milk fever. Milk from cows that have eaten wood-sorrel is prevented from being turned into butter by the effects of the plant. Plants also affect the flavour of milk which, in turn, affects the taste of the butter. Cabbage and ash are responsible for this and ash branches and leaves were used to feed animals in autumn when fodder is scarce.¹⁹

The ladies of the Isle of Man who accused Elizabeth had an environmental problem as they all suffered similar losses. The pressure of livestock on the available pasturage could have been too great to sustain

16. Craine, D., op. cit., p. 20

17. *ibid.* p. 25

18. Everist, S.L., op. cit., p. 213

19. *ibid.*, p. 562

large milk yields and, if animals were pressured to graze plants that were available, then poisonous plant ingestion was more than likely to include those which tainted, suppressed and interfered with milk, butter and cheese making processes. The most telling aspect of the case is the inability to raise living calves over a twelve year period. This can be related only to poor farming techniques, a genetic deficiency in the herd or a vitamin/mineral deficiency.²⁰

Catherine Norris further stated that her husband Dempster Norris, who owned sheep, had said that Elizabeth's visit to the sheep folds of Ballanorris had resulted in the sheep becoming ill and causing them to stop milk production for a long time.²¹ Milk fever is quite common amongst sheep which are being commercially milked and usually occurs soon after lambing. Sheep which are kept for milk stop milking when they are deprived of their lambs.²² Apart from citing disease as a cause, lack of good fodder is another reason for the cessation of milk production, particularly if the sheep are already ill.

Calcott of Ballalough's mare fell sick at a spot where Elizabeth had been pulling ling on his outward journey. He left the mare at the spot and rode pillion on another's horse and the mare died in view of Elizabeth.²³ The fact that Elizabeth was pulling ling had nothing to do with the mare's death. The mare was obviously ill before she was pulled up and, other than disease or old age, the horse may have succumbed to acute poisoning, colic, heat exhaustion and/or milk fever.²⁴

20. Grieve, M. A Modern Herbal, Harmondsworth, 1978, p. 66

21. Craine, D., op. cit., p. 20

22. Bairaclí Levy, J. de. Herbal Handbook for Farm and Stable, Emmaus, 1976, p. 141, 160, 145

23. Craine, D., op. cit., p. 20

24. Hungerford, T.G., Diseases of Livestock, Sydney, 1975, p. 737 - 738

Thomas Cubbon stated that "It was a common saying that if anybody denied Jony anything he got no good of it". Jony of Kirk Braddon was accused in 1717 by Ann Cretney when Jony asked for but received no milk from Ann. At that time a herd of cattle was passing the door and one of the cows immediately fell down and could not be made to rise. Eight men were required to lift the cow whilst the witch and her daughter watched the proceedings, highly amused, from a nearby hedge.²⁵ Sudden collapse in the case of cattle is usually due to milk fever or hypocalcaemia. The amount of calcium in the body is so reduced that the animal collapses and the condition occurs just before, during or after calving. The condition also occurs two or three months after calving, when the animal is subjected to any stress such as movement from one field to another.²⁶

Another accuser of Jony's was Harry Taggart, a miller of Ballaughton who stated that Jony had visited his mill during the grinding and had asked for flour. Harry had refused because it was wheat flour but after Jony had left the mill and gone a little distance, the mill stood still. The mill could not be made to work by any endeavour and would not grind until the bewitched corn was changed, after which the mill went on as before.²⁷ All British grains are more difficult to grind than grains grown in drier countries, because the moisture in the grain makes it difficult to mill. British grain has up to eighteen percent moisture content, compared to ten or eleven percent in drier climate grains and this affects crushability. The moisture makes the grain thick skinned with soft interiors and this was Harry Taggart's problem, particularly as he himself states that the mill

25. Craine, D., op. cit. p. 17 - 18

26. Hungerford, T.G., op. cit., p. 260 - 261

27. Craine, D., op. cit., p. 18

began working after the grain had been changed. Jony's presence had nothing to do with the mill and its ability to work.²⁸

The witch hunt in Scotland was concentrated between the 1590's and the 1670's. The Witchcraft Act of 1563 enabled women to testify for the first time in Scottish witch trials and most of the prosecutions centred on the Lothians, the Border, Fife and Aberdeen. Although much more work needs to be done in the Scottish witchcraft field, it is apparent that very few prosecutions occurred in the Highlands. Larner has proposed that this may have been due to the relatively stable nature of Highland agriculture which was not undergoing the changes evident in the areas where witch hunts were most prevalent.²⁹ Another possibility is the inherent belief that the Highlanders had in such things as the second sight, which was an accepted fact of life as far as the people were concerned. The clan system was still a very strong force in the Highlands and this was a stabilising influence in itself, as it ensured that the old, young and infirm were cared for, thus minimising stress in the community.

The analysis of witchcraft accusations in Scotland follows a pattern similar to that used in the examination of English witchcraft and will proceed on a county by county basis, beginning in the south with Kirkcudbrightshire.

Kirkcudbrightshire was a county predominated by peat soils and moorland vegetation which consisted of purple moor grass, bog myrtle, heather and deer sedge. The rough grazing lent itself to hill sheep farms as the land was unimproved and produced lambs for breeding, fattening and wool. Dairying predominated the lowlands as plentiful

28. This information was provided by my father, T.E. Parkin, who was a miller in Britain and Australia for over thirty years.

29. Larner, C., Witchcraft and Religion, Oxford, 1984, p. 25

grass provided good fodder.³⁰

Janet Macmurdoch of Kirkcudbrightshire was accused by many of being responsible for the death of their cattle but it must be noted that these livestock deaths usually occurred after the accusers had refused a request of Janet's. John Moor of Barley impounded her livestock in May 1665 and she "promised him an evil turn" and shortly after he lost a cow and calf. Similarly John Murray of Laik was convinced that Janet had caused two of his calves to run "wod (mad) and ramished to death" and all of this transpired after he had tripped up Janet accidentally.

Robert Brown of Castleton turned Janet's animals off his grass and she told him he would have no nolt (black cattle) to eat next year's grass and within the year he lost fifteen nolt. William Gordon of Minibourie chased Janet's cattle off his grass and she ventured to say she hoped he would not have as many cattle for the next year's grass. This occurred at harvest time and by May Day he had lost twelve oxen.³¹

Although grass was plentiful on the lowlands, Brown's actions are related to fodder scarcity and his large loss of cattle supports this concept. Larner suggests that a local livestock disease may have been responsible.³² due to the large number of animals lost by Gordon and Brown. The record indicates that there was a great deal of tension amongst the parties and fodder must have been short, as it was the consumption of fodder that was the most contentious issue. However, if a local disease was responsible, it is unlikely that witchcraft

30. Tivy, J. "The South of Scotland" in Mitchell, J.B. (ed.) op. cit., p. 480

31. Justiciary Court, Scottish Record Office, JC 26/38

32. Larner, C., Enemies of God, London, 1981, p. 121

would have been suspected because the locals would have been aware of the symptoms and this familiarity would have ruled out witchcraft.

Jean Sprot's refusal to give Janet a meal resulted in a threat from Janet and that same night Jean's cow gave milk mixed with blood and flesh. The two women had another altercation when Jean's cow ate Janet's grass and Janet plucked the food out of the cow's mouth, with the result that the cow refused to chew her cud, sickened and died. What adds more interest is the refusal of dogs and fowls to eat the salted meat from the dead cow and the fact that Jean's attempts to cook the meat caused it to swell "and the broth was like beastings and the flesh like lights, and her husband and herself and sundrie others having eaten thereof did swell likewise".³³

Bloody milk is caused by several things which have previously been outlined but the death of the cow and the symptoms prior to death suggest plant ingestion. Strange behaviour in cattle can be attributable to belladonna poisoning but the plant is rare in Scotland³⁴ and St. John's wort is a more likely cause. However, even St. John's wort does not cause an animal to stop chewing the cud and it engenders symptoms of too demented a nature to really apply here.³⁵ In view of the reaction of the meat's consumers, an infection within the animal itself is the more likely cause. The cow may have contracted an infection after parturition but it can only be assumed that the cow had had a calf recently, in view of the bloody milk, and the whole is too full of supposition to be conclusive.

Another Kirkcudbrightshire woman accused of witchcraft was Bessie Paine, who was indicted because she charmed an ox belonging to John

33. Justiciary Court, Scottish Record Office JC 26/38

34. Grieve, M., op. cit., p. 583

35. Everist, S.L., op. cit., p. 364; McBarron, E.J., op. cit., p. 99

Turner Elder in Airdwell "by giving him some hay bear and green kaill stoks and gave for signe yt if he should recover he would licke his upper lepp and if not he would die." The ox recovered.³⁶

John Crockett stated that he had several times had cattle which, although well fed, would not bull. He therefore bought a cow but "shortlie yreftir the erll of Withsunailles came to get the Fidner Mairt Kyne and Bessie alleged that they took her cow rather than Crockett's. The following Sunday Bessie accused John of sending the takers for her cow and she informed John's wife, to whom she was speaking, that God would punish them for the theft and whilst Bessie had a cow the Crocketts would have none. For the next eleven years John had no cattle that lived and his cattle died shortly after Bessie's statement.³⁷

Bessie Paine returned to her former residence after Robert Sturgeon, the new tenant, moved in and, sitting down on the hearth, stated that "all the witchcraft which I have I leave it here" and within the year and a quarter he lost thirty cattle and nothing he took in hand did prosper whilst he lived in that room.³⁸ Herbert Crockett lost seven nolt before the first of May after he and Bessie had fallen out over a pair of breeches at Candlemass time.³⁹ Robert Huttoune had a sick cow and his mother-in-law sent for Bessie who had the cow put three times through a hank of green yarn whilst she spoke words the others could not understand. Afterwards the cow was cured.⁴⁰

All the accusers lost cattle heavily and this is indicative of a fodder problem, either the lack of it or its poor quality. The ox

36. Larner, C., et. al., A Source-Book of Scottish Witchcraft, Glasgow, 1977, p. 269, JC 26/28

37. *ibid.*, p. 270, JC 26/28

38. *ibid.*, p. 270, JC 26/28

39. *ibid.*, p. 270, JC 26/28

40. *ibid.*, p. 270, JC 26.28

belonging to John Turner of Airdwell is a good example, as the feeding of hay, bear and kale stalks was a nutritious mixture for an animal suffering from the effects of poor diet or fodder.

Cattle in Scotland were notoriously slow as far as reproductive capacity was concerned. The cows were usually in such poor condition that they only calved once in every two years, due to the poor quality pasture. The plant scabious, found in the Calder parish of Midlothian, was called Eastning wort as it made the cows come into season if they ate it amongst their fodder.⁴¹ The fact that the Crockett family had no cattle for the next eleven years, after John and Bessie's altercation, lends weight to the argument that John Crockett was under-feeding his animals and was a poor husbandman, if others were able to keep their cattle alive.

Robert Sturgeon lost thirty cattle in eighteen months and Herbert Crockett lost seven between Christmas and May. Although Bessie was accused in 1671, no information concerning famine in Scotland indicates a famine or disease problems in that year. The losses must be attributable to fodder shortage, a new disease, or poor management, as so many cattle, with various owners, could not die from a specific plant ingested by the animals. Either the animals slowly starved to death or they suffered a local murrain, the symptoms of which were unknown to their owners. As the transcript gives no indication of symptoms, the cause of death is not certifiable.

Elsbeth McEwen of Dalry was accused of witchcraft in Dumfriesshire and one of the main points against her was the evidence that the minister's horse which was sent to bring her to trial trembled with

41. Fenton, A. "Skene of Hallyard's Manuscript of Husbandrie" The Agricultural History Review, Vol. XI, 1963, Part II, p. 80

fear when she mounted it and sweated drops of blood.⁴² Bracken poisoning engenders many responses in animals and, although horses are usually affected by convulsive seizures and tetanic spasms after bracken consumption, the symptoms for cattle parallel the symptoms exhibited by the horse Elspeth was thought to have bewitched. The high rainfall and climatic conditions in Dumfrieshire⁴³ lend themselves to good bracken growing and the commonest forms of poisoning relating to cattle are frequent bleedings from natural openings and through the skin.⁴⁴ The horse exhibited the skin bleeding condition. Another cause of the horse's skin condition can be attributed to a severe lice infestation which causes scurfy skin. The animal then scratches itself and rubs the skin raw, causing bleeding. The condition is normally confined to animals in poor condition.⁴⁵

Ayrshire in the lowlands of Scotland is greatly influenced by the sea which induces good agricultural production through its benign influences. Margaret Barclay of Irvine, however, did not find the influence of the sea very beneficial. She had a family dispute in 1618 with her sister-in-law, Janet Lyal, and her brother-in-law, John Dein. The whole affair turned sour when John Dein set sail for France and Margaret cursed the ship at the dock, saying that she hoped it would sink. The ship did sink off the coast of England near Padstow, in Cornwall. Margaret was brought before the magistrate and was strangled before being burnt when the verdict went against her. She had undergone severe torture before her "confession".⁴⁶ Whilst there is

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42. Lerner, C. Enemies of God, op. cit., p. 110 and, Lerner C., et.al. A Source-Book of Scottish Witchcraft, op. cit., p. 231
43. Tivy, J., op. cit., p. 481 - 487, in Mitchell, J.B. (ed.) op. cit.
44. Everist, S.L., op. cit., p. 778 - 779; McBarron, E.J., op. cit. p. 25
45. Hungerford, T.G., op. cit., p. 742
46. Seth, R. In the Name of the Devil, London, 1969, p. 60 - 67; Lerner, C., et. al. op. cit., p. 401; 2.1.1618 Register of the Privy Council V.77 Rp CXXXIX; 3 6

no agricultural explanation for the loss of the ship, other than the normal storms at sea, Cornwall is far from Ayrshire and witching spells are not usually so efficacious when the distance is so great.⁴⁷

Margaret Alexander of Glasgow in Lanarkshire was brought to trial in 1700 by Robert Patersone. He stated that he refused her a shilling and she said he would regret it. The next day his horse lost the power of its hindlegs and she told him to administer two shillings worth of salt in a particular way.⁴⁸ As the "particular way" in which the salt was administered is not outlined, it can be assumed that it was through the mouth or the anus as the only two orifices available. Salt is a disinfectant in itself but two shillings worth was a considerable amount. Nevertheless, it probably had little effect as horses become paralysed through the consumption of aconite, ergotised grain, hemlock, oats, radish and field stachys which, however, is uncommon in Scotland. Tall fescue grass causes lameness in the hind limbs and this plant is distributed throughout Britain, having different strains for different regions.⁴⁹

Agricultural practices in the sixteenth and seventeenth century county of the Lothians involved an infield outfield system with hamlets of joint tenants. The land was fertile and cultivation of the good land gave way to pasture on the poor land.⁵⁰ Katherine Oswald of Niddrie near Edinburgh was accused of witchcraft in 1628. John Nisbet and his wife refused to sell Katherine a cow, whereupon the cow gave red blood instead of milk for three days. Katherine's defence argued that there was a natural explanation for the blood, it could be mastitis or another disease, an unskilled milker, or a monster bit her udder or she sat on an ants' nest thereby causing her teats to shed blood through

47. Starhawk, The Spiral Dance, New York, 1979, p. 116

48. McLachlane, H.V., "Witchcraft Belief and Social Reality" The Philosophical Journal, 1977, Vol. 14, -. 103, Scottish Record Office, JC 26/81/09

49. Hungerford, T.G., op. cit., p. 737, 1150

50. Miller, R. "The Lowlands of Scotland" in Mitchell, J.B., op. cit. p. 194 - 197

the ant bites.⁵¹ Bloody or red tinged milk has been explained in detail⁵² and the explanation offered by the defence should have sufficed to clear Katherine.⁵³ The teats are delicate parts of the cow's anatomy and they sometimes develop deep fissures and bleed after they have been chapped.⁵⁴

Janet Cock had an argument with James Douglas over the raking of dung.⁵⁵ This case highlights the overall scarcity of dung and the necessity of having sufficient to ensure the fertility of the land. The fact that two people argued over it indicates its importance in the agriculture of the Lothians at this time as animal manure provided the major fertilising agent during this period.

Isobel Grierson of Prestopans was accused of ruining a vat of ale in January, 1607. She was looking for her cat and, whilst passing the window of Robert Peddoan's house, she put her hand in and "drew forth her cat. At that time there was working in the vats a brewing of good ale, where of sundry of the neighbours were tasting, but by her devilish incantation and sorcery, the brewing ale became altogether rotten and black, thick like gutter dirt, with a filthy and pestilent odour, that no man might drink nor feel (endure) the smell thereof".⁵⁶

The chief raw material for beer making was barley or oats. The grain must be malted or moistened, allowed to germinate and then dried. This dry barley or oats is then crushed and used in the brewing process. Problems with the grain arise with temperature, germination and adequate aeration of the drying grain. As the mixture was still in the

51. Larner, C., et. al., op. cit., p. 84; Registrar Privy Council 2nd S V3 p. 206, 278, 290, 293, 2.1.1628 Niddry

52. Hungerford, T.G., op. cit., p. 238

53. McBarron, E.J., op. cit., p. 141 - 142

54. Bairaclli Levy, J., de op. cit., p. 146

55. Levack, B.P. "The Great Scottish Witch Hunt of 1661 - 1662" The Journal of British Studies, Vol. XX No. 1 Fall 1980, p. 101

56. Robbins, R.H., The Encyclopedia of Witchcraft and Demonology, New York, 1965, p. 235; Seth, R. In the Name of the Devil, London, 1969, p. 56

vats, being made, the grain was the cause of the problem. as it was either of poor quality or had not been malted correctly.⁵⁷

Janet Wishart and her son, Thomas Lëys, were charged with various witching offences in Aberdeenshire in 1597. Janet was charged with bringing down a dozen fowls dead at her feet and of making cows give poison instead of milk. Further charges stated that she bewitched oxen so that they would work only for her. On another occasion, whilst winnowing wheat, she raised a good wind for winnowing from a dead calm and this was done by placing a piece of burning coal at two doors of the house. All her neighbours were held up in their winnowing work for lack of a wind.⁵⁸

Physical controls on agriculture in Aberdeenshire necessitated the practice of transhumance. The lowlands were subjected to forest clearing, drainage of the peaty soils, pasture improvement, manuring and stone collection from the fields. This was an ongoing process in the sixteenth and seventeenth centuries as the landscape was undergoing agricultural improvements. Oats, barley, root crops and ley grasses were grown on a rotational basis and supported a variety of livestock.⁵⁹ Dairy cows were an important aspect of farm life in Aberdeenshire. The cause of bloody milk has been outlined in detail but as the word "poison" is used to describe milk of the bewitched animals it is likely they were suffering from mastitis. The curdled material and clots often occur in milk expressed from cows with this disease. Paracute mastitis results in the infected part of the udder becoming gangrenous and it can slough off six to eight days after the infection. The

57. Chambers's Encyclopedia, Vol. II, Oxford, 1966, p. 531

58. Macleod, N.A. Scottish Witchcraft, St. Ives, 1975, p. 13 - 15; Larner, C., et. al. op. cit., p. 174

59. Kirk W., "North-east Scotland" in Mitchell, J.E., op. cit. p.520-523; O'Dell, A.C. and Walton, K. The Highlands and Islands of Scotland, London, 1962, p. 284 - 289

infection is rapid, the cow may be quite normal but twelve hours later it has collapsed due to toxaemia.⁶⁰

The loss of so many fowls could be due to the ingestion of acute poisons such as aconite, corncockle seeds and other contaminated grains. The lack of symptom evidence makes an explanation difficult as the birds may have been subject to extreme stress or a disease. The winnowing wind is another case of weather witchcraft and can only be explained in terms of the vagary of the wind and envious neighbours.

Magdalen Blair was brought before the court at Stirling on 13th January, 1659. James Andersone Baxter declared that about a year ago a horse belonging to Richart Idstone stood in front of Magdalen's door before he was unburdened of a load and Magdalen and Richard had words. The end of it was Magdalen struck the horse saying "God ner he shoot to death" and the horse died suddenly the same day after he was taken home.⁶¹

Horses die suddenly from acute colic, heart conditions, milk fever and acute poisonings. Plants which induce these symptoms and which grow in Stirlingshire, a pastoral farming region which practiced transhumance,⁶² included foxgloves, hemlock, linseed or flax, poison ivy and clover.⁶³ Any of these plants could have been responsible for the death of Baxter's horse. However, it is worth noting that the horse was seen to have a spittle discharge from the mouth/nose. Strangles, influenza and viral infections exhibit nasal and mouth discharges and the horse may have been suffering from one

60. Hungerford, T.G., op. cit., p. 224 - 228; Bairacli Levy, J. de op. cit., p. 182

61. Larner, C., et. al., op. cit., p. 252; 22.3.1659 Stirling JC.10/2

62. O'Dell, A.C. and Walton, K. op. cit., p. 537, 538

63. Hungerford, T.G., op. cit., p. 737 - 738, 1147 - 1148

64. ibid. p. 777 - 784

of these conditions. The horse may also have been overworked.⁶⁴

Margaret Bezok was accused by Katherin Davidson at Fortrose in 1699. Margaret threatened her saying that she should have "neither sock nor coulter going upon that ground, and that thereafter she lost one ox that dyed suddenly and another ox that fell and broke his bones". This accusation arose because Katherin (of Balmaduthy) had kept her cows from Margaret's hens and therefore Margaret threatened her.⁶⁵

Cattle die suddenly from plant ingestions which engender symptoms of gastroenteritis, gasping respiration, convulsions, purging and depression. Plants noted for this response include aconite, belladonna (rare in Scotland), woody nightshade, blue periwinkle, cabbage, buttercups, crushed corn cockle seeds, curled or yellow dock, dead-nettle, field larkspur, dropwater, water dropwort, ergot fungus, field poppies, hemlock, laburnum, Pheasant's Eye, privet, scarlet pimpernel, thornapple, variegated thistle and the yew tree. In fact, almost all the herbs/plants listed in the thesis. The yew tree causes sudden death with no prior symptoms and cattle are the most susceptible to poisoning by this plant.⁶⁶ Bone fragility, however, is related to consumption of lush, young oats and bracken consumption, because the bracken alkaloids are toxic to bone-marrow production and the oats interfere with calcium absorption by the body.⁶⁷

James Ked's cow which failed in his plough was suffering from field stachys ingestion as animals collapse at work after eating this plant.⁶⁸ Perennial rye grass could also be a cause as the

64. *ibid.* p. 777 - 784

65. Larner, C., et. al., *op. cit.* p. 276, 6.10.1699 Fortross

66. Schenk, G. The Book of Poisons, New York, 1955, p. 17; Everist, S.L., *op. cit.* p. 688 - 689

67. McBarron, E.J., *op. cit.*, p. 45

68. Everist, S.L., *op. cit.*, p. 387 - 388; McBarron, E.J., *op. cit.* p. 45

poisonous principle makes animals stumble, fall and stagger.⁶⁹ The death of Ked's horse from an unrecognisable disease/illness can be attributable to plant ingestion, as horses die suddenly from acute poisoning. This is caused by cabbage, elder, foxgloves, hemlock, linseed or flax, turnip vetch and white clover.⁷⁰ The agricultural land of Fortrose (now Ross and Cromarty) supported all these plants in the sixteenth and seventeenth centuries, although turnips may not have been introduced at that time.⁷¹

Witches were regarded as being more prevalent on the Orkney Islands than elsewhere in Scotland, a situation which was thought to be due to the poverty.⁷² The islands were not agriculturally rich but oats and bere were grown in alternate crops on divided strips and tenancy consisted of farming these unfenced separated strips. The land was left alone except at seeding and harvest time. Common land was extensive and was separated from the sown acres by turf dykes.⁷³ Cattle were very important in the Orkneys economy for both meat and milk and this importance is reflected in the case of Marion Richart.

Marion Richart, alias Layland, was indicted on 29th May 1633 on charges of bewitching milk and enabling men to catch fish where previously they had not been able to do so. However, the real issue between her accuser and Marion was the lack of compassion in "that there was

a poore wyfe with yow who was travelling
of cheild in your hous and desyred a sope
milk with yow, quhilk ye on nawayes wold
give; therefoir the said poor woman sent

69. Everist, S.L., op. cit., p. 323 - 326; McBarron, E.J., op.cit.p.15

70. Hungerford, T.G., op. cit., p. 1147 - 1148

71. Kirk, W. "North-East Scotland" in Mitchell, J.B., (ed.) op. cit., p. 514 - 515

72. Linklater, E., Orkney and Shetland, London, 1965, p. 162

73. *ibid.*, p. 85

to Robert Dreveris hous (quilk wes in that same bigging) to get a sope milk quhik the said Robertis wyfe sent unto hir; and immediatlie thairefter the said Robertis wyfe lost the profit of hir wholl milk."

Marion's denial of milk to her visitor and Robert Dreveris's wife's⁷⁴ subsequent gift of milk to the woman, is a direct reversal of the lack of charity principle usually associated with the witchcraft issue. In this instance, the accused witch was seen to be the wrong doer, especially as another's charity had cost that person the profit of her milk. The causes of milk loss have been well documented and Marion restored the milk to the cow by telling Robert's wife how to go about it. Unfortunately, no record of that advice is available. William Fothringhame also lost his milk and his best cow subsequently died but the cause of this death cannot be ascertained as no record of the symptoms is available.

The cases of James Davidstone and David Jokis are unusual. Both men had lost their ability to fish and Marion's actions enabled them to regain their fishing prowess. A beneficial act was probably insufficient to allay the community's fears regarding Marion as she had none others to her credit and many suspicions against her.⁷⁵

Marion Cumlaquay of Birsay was haled before the Orkney courts on charges of bewitching crops and corn. "She had been seen to turn herself three several times 'withershins' in Robert Carstairs's house, and that year his barley was all blew and rottin". She was burnt.⁷⁶ No date is given for Marion's trial but Robert Carstairs's barley was

74. L'Estrange Ewen, C. Witch Hunting and Witch Trials, London, 1929, p. 287 - 289. Register of the Privy Council of Scotland, 1633, p. 551

75. *ibid.*, p. 287 - 289

76. Summers, M. A Geography of Witchcraft, London, 1927 and 1958, p.229

affected by the ergot fungus which is purple/blue in colour and causes the grain to rot.⁷⁷

The Shetland Islands supported a small nation of seafarers as the sea was the main form of livelihood for the people. No part of the land is more than three miles from the sea and the continuous daylight at midsummer, combined with strong summer gales with salt laden winds, made agriculture difficult. In the sixteenth and seventeenth centuries the islands were mainly pastoral as the climate reduced the cropping ability and the soil was too acidic for much agricultural success. Cattle were the only prominent livestock and in 1656 the islands were regarded as tradeless and a customs officer had only just been sent there.⁷⁸

Marion Peebles was hanged and burnt for witchcraft on the Shetlands as she was thought to be responsible for the wrecking of boats and the drowning of sailors. She bore them "ane deadlie and veneficial malice". She also "cast her blear eyes upon a cow, and it crappit togidder till no lyfe was leukit for her."⁷⁹ There is no rational explanation for the loss of the boats and men at sea, other than naturally occurring storms. Life was difficult for the people on the Shetlands and the people had a strong belief in supernatural beings. Witches were regarded as the most evil because they could bankrupt the farm, cause cows to lose their milk and cause boats to be lost at sea.⁸⁰

77. Stary, F. and Jirasek, V. Herbs, London, 1978, p. 102; Ramsbottom, J. Mushrooms and Toadstools, London, 1953, p. 142

78. O'Dell, A.C. and Walton, K., op. cit., p. 99, 161, citing Thomas Tucker's Report upon the Settlement of the Revenues of Excise and Customs in Scotland, 1656

79. Summers, M., op. cit., p. 229

80. Nicolson, J.R. Shetland, Newton Abbot, 1972, p. 183

Marion's case reflects these two aspects of the Shetlanders' existence and the cow's death was caused by plant ingestion and poor nutrition.

"Crappit" in the Scottish sense means to stuff or fill, as in filling a haggis with oats and meat. In reference to the cow's illness and death, the phrase means that the animal was either extremely constipated or was suffering from bloat. Bloat is caused either by the ingestion of lush green fodder or by the ingestion of root crops. In the case of root crop ingestion, a piece of the root becomes lodged in the animal's throat and prevents the emission of gastric gasses. Constipation in cattle occurs only if the animal is old, sluggish, over-fat or confined in a small area and is in very weak or poor condition. If untreated, constipation causes serious digestive disorders which can result in impaction and death. The condition can arise in dairy cows which are suffering from milk fever or hypocalcaemia and is also linked to a diet which is deficient in roughage and vitamin A. Fodder shortages which induce the animal to consume astringent tree loppings, also gives rise to constipation, as the third stomach or other portion of the digestive tract becomes impacted. The cow died from the consequences of its diet, not Marion Peebles's "blear eye".⁸¹

This concludes the examination of plant ingestion and witchcraft related incidents in the Celtic regions of Britain.

81. Hungerford, T.G., op. cit., p. 1073 - 1074

REAL OR IMAGINED: THE LINK BETWEEN WITCHCRAFT
AND LIVESTOCK LOSSES, A CONCLUSION

The emphasis of all published works on the rise and decline of witchcraft in sixteenth and seventeenth century Britain has always been placed on the religious, social, judicial and economic aspects of the debate. Modern studies in mental illness and the psychology of man have added new insights into the prevailing climate of the Tudor and Stuart period but not one has gone so far as to suggest that another, alternative, explanation must also be considered as a contributory cause of witchcraft in sixteenth and seventeenth century Britain.

The thesis has shown that the evidence presented in trials, depositions, documented accusations and authoritative accounts of witchcraft incidents concerning the deaths, illnesses and diseases of domestic livestock can be plausibly related to plant ingestion and the effect the ingested substances had on the animal. A direct link between plant ingestion and its effect on animals has been established. The examination of the records has yielded numerous positive cases where this link can be predicated.

The examination of the witchcraft livestock related cases has indicated a number of trends in the accusations which support and reflect the importance of the religious, social, economic and agricultural changes which occurred in the sixteenth and seventeenth centuries. The conclusion reached in the thesis must be placed within the context of these changes.

In the religious sense, the Reformation and the dissolution of the monasteries created a climate of spiritual unease, which engendered

in the minds of the populace, feelings of insecurity and vulnerability to evil. The changing nature of religion and the gradual Protestantisation of England, Scotland and Wales, saw the rise of many religious disciplines in the Tudor and Stuart period and the effect on the common people of this and of the intellectualisation of religion, added to their sense of insecurity.

The changing nature of society increased the tensions felt by the common people. The demise of the monasteries and the end of the manorial system necessitated the rise of individualism, wherein a person was responsible for his or her own self. The introduction of the Poor Laws was the judicial and government response to the changing nature of society. The rise of the nuclear family and the breakdown of the extended family resulted in the isolation of older women, single women and widows and made these individuals more susceptible to witchcraft accusations. The case studies in the thesis emphasise this point as most of the accused were women, either single, married, old or widowed and, despite the solely agricultural nature of the case studies, the research supports the concept of women as social outsiders and victims.

A large proportion of the case studies examined also emphasises the vulnerability of women in their community environment, as they were accused ^{also} by women and, in the majority of cases, by men, but their accusers came from a stronger economic and social bracket than the accused. This occurs not only in England but in Wales and Scotland, where women had a stronger legal position, as far as property ownership and rights were concerned, than their English counterparts. The accusations highlight the lack of neighbourliness and charity towards the poorer members of the community and reflect the concept that the accusers were

assuaging their own guilty consciences at their uncharitableness by voicing claims of maleficia against those they may have wronged.

The case studies support the view that witchcraft can be seen as a social strain gauge as they reflect the tensions and stress in communities under pressure. This is exemplified by the Chelmsford witchcraft accusations in Essex in 1566 and 1579 and those of the Pendle Forest in Lancashire of 1612 and 1633. These incidents also underline the community concept of the hereditary nature of witchcraft as, in some cases, as many as three generations of women; grandmother, mother and granddaughter, were implicated in the Essex and Lancashire trials. The community had long memories as many accusations resulted months and, sometimes, years after the alleged witchcraft incidents had occurred. Somerset, Kent, Essex, Surrey, Berkshire, Hertfordshire, Lancashire, Flintshire and the Isle of Man are all areas in which this situation occurred.

Economic factors which influenced witchcraft accusations in the agricultural context of the thesis, emerge from the case studies. The general contention that witchcraft occurred more often in richer agricultural counties, is evidenced by the many cases in the Home Counties and along the eastern seaboard in Scotland. Flintshire, one of the richer Welsh counties, follows this trend. The poorer counties of England and those of the Orkney and Shetland Islands are not well represented. Whilst more research needs to be done in the case of the Celtic areas of Britain, it is interesting to note that the agriculturally advanced counties, where specialisation and farming in response to urban markets was practised, reflect the economic motivation evidenced in many of the case studies. The loss or potential loss of income probably motivated witchcraft accusations, particularly as it was the wealthier

members of the community who were accusing the poor community members. Greater changes in the agricultural practices of the richer counties helped generate tensions and pressured individuals within those farming communities.

Changes in the agricultural environment, its practices, techniques and activities, generated sufficient dislocation in the community and contributed to the emergence of an atmosphere where denunciations of witchcraft could occur. Enclosures, engrossing, new farming methods and new crops were introduced in an attempt to improve production, in order to keep pace with an increasing population. Economic changes were generated by trade, money and urban markets, which encouraged specialisation in crop and animal production and this helped to reduce community self-sufficiency. Unemployment and underemployment often resulted amongst the agrarian labourers and the loss of the commons proved the downfall of many individual farmers who could no longer feed their domestic livestock.

The importance of domestic livestock in the community and village environment cannot be underestimated. Indeed, it is the importance of the animals to the community, which is indicated by the case studies. Dairy cattle figure prominently in the accusations and these animals, more than any other, were vitally important to the individual farmer. Not only did the dairy cow attempt to provide a calf on an annual basis, but it also provided milk and the products obtained from the milk, such as butter, cream and cheese. Many of the case studies emphasise the importance of the products, as much as the loss of the cow and/or calf, because the cow represented the most viable economic unit on the farm. Replacement of a dead animal was not only expensive, but the loss of the animal spelt hardship and economic disaster for the poorer farmer.

Sheep and horses are well represented but were not as vital as the dairy cow and the case studies involving these animals indicate that larger numbers of sheep and the possession of horses, was mostly confined to the wealthier members of the community who brought the accusations against the less well off amongst the populace. Pigs, however, are well documented in the case studies and they were important in the livelihood of the small farmer. Pigs provided meat and offspring for the market and helped to supplement the owner's income.

The state of domestic animal husbandry is a key factor in the concept inherent within the thesis. No attempt has been made to pass judgement on the quality of care meted out to sixteenth and seventeenth century livestock and, at no time, has it been suggested that livestock was deliberately undernourished or uncared for in this period. Nevertheless, modern farming practices and research have been used to parallel the poor quality of the principles of livestock management extant in Tudor and Stuart Britain. The understanding amongst the farming community of the relationship between animals and the effect nutritional and balanced diets had on the animals' reproductive and productive capacity, was almost totally inadequate. The principle of keeping dairy cows thin, the inability to market sheep for meat for up to four years after birth, the methods of castrating pigs and the concept of leaving pasture, i.e. grass, unimproved, because nature would do that without assistance, are just a few examples of this inadequacy.

Veterinary knowledge was limited and farmers relied on traditional methods to cure their sick animals. Some of these methods were efficacious but many were not and the animals' survival was due more to good fortune than medical knowledge. No concept of animal genetics existed and the importance of selection methods, in order to improve the breed

or type of animal, was barely understood. Sixteenth and seventeenth century farmers relied a great deal on phenotype or environmentally related growth factors, rather than genotype or genetically induced factors, when selecting their breeding stock. The printed literature available to the farmer supported and emphasised phenotype selection of livestock, as the examination of the most widely read works during this period, has indicated. Since most animals' potential to reproduce, grow and produce products such as meat, milk and wool, was largely unattained during this period, the quality of stock improvement was unforthcoming. The association of nutritional intake and the effect a good or bad diet had on the animal, was not commonplace and the well-being of the animals was therefore affected.

Animal husbandry techniques were qualitatively poor and the relatively uncertain survival of their livestock made owners and farmers more susceptible to blaming the loss of an animal, or the loss of its production, on a suspected witch. This situation arose during this period only because of the other pervading influences within society at this time. Plant ingestion created the condition and the complex of individual psychology and communal sociology, the explanation.

The combination of plant analysis and witchcraft case studies makes it apparent that events and symptoms which were considered attributable to witchcraft practices, can be specifically related to groups of plants present in the natural environment of the livestock and the populace. The symptoms engendered by these plants enables a general grouping of the plants which further underlines the link between plant ingestion and witchcraft related livestock and production losses. The plant groups closely follow the symptoms outlined by the accusers of suspected witches and the owners of bewitched or overlooked animals.

The onset of sudden illnesses which are of short duration and which result in almost immediate death of livestock, are well documented in the case studies. These illnesses can be related to the ingestion of common oats, lucerne, rape and variegated thistle and occur most often after hungry animals feed greedily on garden wastes, tree trimmings and after being released from a long confinement, such as the winter months. Stress related illnesses, the symptoms of which are staggering, collapse and a condition known as "humped back" occur after animals consume lush green growths of wood sorrel, oats and field stachys. Oats, curled dock and Pheasant's Eye cause excessive salivation, a stiff-legged gait, paralysis and heart and breathing failure in cattle.¹

Sudden deaths which are unexpected and which have no apparent cause are heavily represented in the witchcraft case studies. In cattle they occur with the onset of specific symptoms which include gasping respiration, convulsions, irritant gastroenteritis, depression and purging. Sheep also exhibit these symptoms as well as madness and coma. Irritant plant poisons are responsible for the reactions mentioned above. Such irritants are sourced in the most poisonous plants such as hemlock, mandrake, belladonna and aconite.² Obstructional bloat results in sudden death and is caused by the consumption of root crops, such as carrots and turnips, these being the most common in the sixteenth and seventeenth centuries.³

Horses die suddenly from acute poisoning, colic, heat exhaustion and milk fever. Pigs are susceptible to milk fever and heat stroke as well as nitrate/nitrite poisoning. Foal and piglet deaths, which are

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1. McBarron, E.J., Poisonous Plants, Melbourne, 1983, p. 141 - 142
 2. Hungerford, T.G., Diseases of Livestock, Sydney, P. 15 - 16
 3. *ibid*, p. 1090 - 1112

sudden, are related to mineral and vitamin deficiencies in the mother and this deficiency occurs during the pregnancy. Piglets are particularly prone to poor sow nutrition and undernourishment. Deficiency related diseases, exposure, lack of iron and other vitamin deficiencies are a major cause of death in piglets, at or soon after birth.⁴

Prolonged illnesses in domestic animal cases, those which occur over a period of days or months and which are accompanied by unthriftiness or failure to thrive, intermittent deaths in a flock or herd and the assumption of solitary habits by the affected animals, are all attributable to poisonous plant ingestion. Failure to thrive is caused by cumulative liver poisons and these alkaloids are found in bracken, ragwort, oats and ergotised grain. Prolonged illness, culminating in collapse and sudden death, after the animal has been subjected to stress, occurs without warning after lengthy grazing on mature plants such as oxalate-rich bracken and field stachys. Oat consumption causes bent legs and skeletal deformities, rickets and bone fragility, as the chemicals within the oats prevent calcium absorption by the body. The field poppy causes blindness in horses and ergotised grain is responsible for lameness and gangrenous limb extremities, the consequences of which have been outlined.⁵

Abortion and stillbirths in domestic livestock are other common complaints cited in the case studies. Abortions in cattle are related to serious poisonings as they are induced by ergotised grain, hemlock, mint and plants high in nitrate/nitrite levels. Iodine deficiencies caused by too much cabbage and turnip ingestion result in stillborn and hairless calves. Nitrate/nitrite poisoning causes listlessness and a short illness, followed by an abortion.⁶ Sheep abortions are due to clover disease

4. McDonald, P., et. al. Animal Nutrition, Sydney, p. 15 - 16

5. McBarron, E.J., op. cit., p. 142 - 143

6. Hungerford, T.G., op. cit., p. 167 - 168

which affects the hormone levels in the ewe, vitamin A deficiency and nitrate/nitrite poisoning.⁷ Poisons which cause abortions in pigs are usually mineral related and are indicated by scouring, prostration and convulsions before the young are expelled. Lack of protein, vitamins and calcium also cause abortion and stillbirths amongst pigs.⁸ Horse abortions which are related to plant poisons are difficult to detect, as the horse does not exhibit any pattern of symptoms prior to the abortion. Abortions sometimes follow after colics and mineral deficiency.⁹

Gradual wasting and emaciation in animals is well documented in the case studies and in cattle the condition is related to chronic mineral deficiencies and the consumption of bracken, ragwort and other cumulative liver poisons. In the case of horses, the condition is related to calcium disease, poor teeth and digestive disorders and pigs exhibit these symptoms only when deficient in minerals.¹⁰ All mineral and vitamin deficiencies occur only when the animal has been without proper and adequate nutritional fodder for a long period.

Bloody or red milk is a popular complaint in the witchcraft/livestock cases and the commonest cause is a ruptured blood vessel, a large one if the milk is very red and a small one if the milk is only slightly tinged.¹¹ Whilst it is a condition usually seen after calving, it can also be attributed to the bruising of the mammary glands after the animal has been used as a beast of burden¹² or if the animal has been milked too harshly.

7. ibid. p. 28

8. ibid. p. 424

9. ibid. p. 736

10. ibid. p. 744, 435

11. ibid. p. 238

12. Sebold, H. Witchcraft the Heritage of Heresy, New York, 1978, p. 172.

The thesis makes no claim that all witchcraft related animal and production losses were due to plant ingestion. Murraings, disease, old age, birthing difficulties and any other number of accepted reasons were probably equally responsible for such losses. It is with the more unusual losses and symptoms cited in the case studies that the thesis has been concerned. Appendix I lists over two hundred individuals accused of agriculturally related witchcraft activities throughout Britain and there is no doubt that further record research would yield many more.

In essence, the evidence strongly suggests that the link between plant ingestion and witchcraft related livestock and agricultural losses in sixteenth and seventeenth century Britain must be regarded as a contributory factor in the rise of witchcraft during this period.

APPENDIX ILIST OF KNOWN WITCHES CHARGED WITH
LIVESTOCK AND AGRICULTURAL LOSSES.

<u>Year</u>		
1530	Christian Shirston of Castle Cary in Somerset for milk, ale and cheese makings.	Thomas, K. <u>Religion and the Decline of Magic</u> , Harmondsworth, 1973, p. 661
1560	William Rande of Great Totham in Essex for a cow	L'Estrange Ewen, C. <u>Witch Hunting and Witchtrials</u> London, 1929, p. 118 Cockburn, J.S. <u>Calender of Assize Records</u> , HMSO, 1975, Essex, Elizabeth I, p. 33
1562	Thomas Batton of Lancashire for charming cattle	Haigh, C., <u>Reformation and Resistance in Tudor Lancashire</u> , Cambridge, 1975, p.322 Cheshire County Record Office, Chester, EDA 12/2 fo. 82
1563	Elizabeth Lowys of Waltham in Essex for a lamb and a pig	Macfarlane, A. <u>Witchcraft in Tudor and Stuart England</u> , London, 1970, p. 307 - 309. Young, A. <u>History Today</u> , 12, December, 1972, p. 884
	Alice Prabury of Barnsley in Gloucestershire for animal healing	Horsley, R.A. <u>Journal of Interdisciplinary History</u> , IX: 4 Spring, 1979, p. 703
1565	Joan Growse/Gowse caused the death of a bull/ox Anne Vale of Whygt Radinge in Essex for bewitching pigs Joan Byden of Maidstone in Kent for turkeycocks	L'Estrange Ewen, C. op. cit., p. 119 Cockburn, J.S. op. cit. Essex, Elizabeth I, p. 251 L'EE op. cit., p. 118; Cockburn, Kent, Elizabeth I, p. 36 L'EE op. cit., p. 119; Cockburn, Kent, Elizabeth I, op. cit., p. 54.
1566	Lora Wynchester of Hatfield Peverell in Essex for sheep, pigs and a cow Mother (or Agnes) Waterhouse of Chelmsford in Essex for hogs, geese, brewing and unchurnable butter	L'EE, op. cit., p. 120; Cockburn, Essex, Elizabeth I. op. cit., p. 46 Seth, R. <u>Stories of Great Witch Trials</u> , London, 1967, p. 18 - 21 Summers, M. <u>A Geography of Witchcraft</u> , Evanston, 1958, p. 118; L'EE op. cit., p. 319 - 321
1567	Alice Atrum of Great Cogginhall in Essex for a pig and a horse	L'EE op. cit., p. 121; Cockburn, Essex, Elizabeth. I. p. 58
1568	Katherine Cockes of Wandelsworthe in Surrey for a horse	L'EE op. cit., p. 121; Cockburn, Surrey, Elizabeth I, op. cit., p. 368.

<u>Year</u>		
1570	Malter's wife in Essex for sheep sickness and un-churnable butter Alice Swallow of Little Baddowe in Essex for bewitching horses Richard and Clemence Marshall of Croydon in Surrey for horses and a cow	Thomas, K., op. cit., p. 664 Kingston, J. <u>Witches and Witchcraft</u> , London, 1976, p. 56 L'EE, op. cit., p. 123; Cockburn, Essex, Elizabeth I, op.cit., p. 76 L'EE op. cit., p. 123; Cockburn, Surrey, Elizabeth, I. op. cit., p. 453
1571	Alice Stanton of Northflete in Kent for bewitching a cow Agnes Francys of Hatfield Peverell in Essex for a horse and cows	L'EE, op. cit., p. 131; Cockburn, Kent, Elizabeth I, op. cit., p. 133 L'EE, op. cit., p. 127
1572	Joan Usborne of Haylesham in Sussex who caused cattle to die John and Joan Smith/Sawmon/Salmon of Danbury in Essex for cows, pigs and sheep Agnes Steadman of Halstead in Essex for cows	L'EE, op. cit., p. 126 L'EE. op. cit., p. 79, 126, 158 - 159 Cockburn, Essex, Elizabeth I, op. cit., p. 100, 304 Cockburn, Essex, Elizabeth I, op. cit., p. 103
1574	Alice Hynckson of Thaxstede in Essex for bewitching cattle and sheep Cecilia Glasenberye of Barking In Essex for bewitching a horse Marion Constable of Dorking in Surrey for bewitching pigs Agnes Bromley of Hatfield Peverell in Essex for pigs and cows	L'EE, op. cit., p. 130; Cockburn, Essex, Elizabeth, I, p. 125 - 126 L'EE op. cit., p. 30; Cockburn, Essex, Elizabeth op. cit., p. 125 L'EE, op. cit., p. 131; Cockburn, Surrey, Elizabeth, I op. cit., p. 723 L'EE op. cit., p. 133
1576	George Brockall of Betchworth in Surrey for a bull Alice Casselowe of Mayfi(e)lde in Sussex for an ox and pigs	Cockburn, Surrey, Elizabeth I, op. cit., p. 851 L'EE op. cit., p. 136
1577	Bridget Hitchcocke of Bisely in Surrey, for a horse and cow Howse, wife of Thomas Howse of Hampshire for cattle and pigs	L'EE, op. cit., p. 135 Hampshire Record Office, Deposition Books in Consistory Court Cases, 1577

Year

- 1578 Joan Prestomary of Great Dunmowe in Essex for cattle L'EE, op. cit., p. 136; Cockburn, Essex, Elizabeth I, op. cit., p. 176
- Jane Buxtone of Stratford Langthorne in Essex for pigs L'EE, op. cit., p. 136; Cockburn, Essex, Elizabeth I, op. cit. p. 175
- Katherine Burbage of All Saints' Hoo in Kent for horses and pigs L'EE op. cit., p. 137; Cockburn, Kent, Elizabeth I, op. cit., p. 157
- Alice Daye of Boxley in Kent for heifers Cockburn, Kent, Elizabeth I, op. cit. p. 158
- Joan Norfolke of Borley in Essex for a horse Cockburn, Essex, Elizabeth I, op. cit. p. 190
- 1579 Margery Stanton of Wimbish for a horse, cows, pigs, chickens and bloody milk Macfarlane, A., op. cit., p. 83; Thomas, K. op. cit. p. 82, 138; Cockburn, Essex, Elizabeth I, op. cit., p. 186; Kittredge, G.L. Witchcraft in Old and New England, New York, 1956, p. 44
- Alice Stedman of Stedman in West Sussex for abortion/early calving in cattle L'EE, op. cit., p. 83
- Elizabeth Hardinge of Barking in Essex for young horses/colts L'EE, op. cit., p. 139; Cockburn, Essex, Elizabeth, I. op. cit. p. 189
- Margaret Welles of Barking in Essex for pigs L'EE, op. cit., p. 139; Cockburn, Essex, Elizabeth I, op. cit., p. 191
- 1580 Agnes Mylles of Dedham in Essex for cows and calves L'EE, op. cit., p. 140; Cockburn, Essex, Elizabeth I, op. cit., p. 198
- Ursula Welfare of Alfriston in Sussex for a pig, hens and chickens L'EE, op. cit., p. 141
- 1582 Elizabeth Ewstace of St. Osyth in Essex for geese, pigs, a cow and bloody milk Robbins, R.H., The Encyclopedia of Witchcraft and Demonology, London, 1964, p. 426.
Haining, P. (ed.) The Witchcraft Papers, London, 1974, p. 59
- Margaret Grevell of St. Osyth in Essex for brewing and churning Robbins, R., op. cit., p. 426; Haining, P. (ed.) op. cit., p. 58, Notestein, W, A History of Witchcraft in England from 1558 - 1718, London, 1911, p. 44
- Agnes/Annis Heard of St. Osyth in Essex for bewitching cattle, sheep, lambs, beer and losses of milk and cream Robbins, R.H., op. cit., p. 426; L'EE. op. cit. p. 146; Cockburn, Essex, Elizabeth I op. cit., p. 225; Haining, P. (ed.) op. cit., p. 60 - 61

Year

- 1582 Alice Hunt of St. Osyth in
Cont. Essex for bewitching cattle
L'EE, op. cit., p. 145; Cockburn, Essex,
Elizabeth I, op. cit., p. 224; Seth, R.
Stories of... op. cit. p. 38
- Agnes Bryant of Great Bursted
in Essex for brewings and a
horse
L'EE op. cit., p. 147; Cockburn, Essex,
Elizabeth I, op. cit. p. 230
- Agnes Waters of Goldaming in
Surrey for a cow and
bullocks
L'EE, op. cit., p. 149; Cockburn, Surrey,
Elizabeth, I., op. cit., p. 1324
- Elizabeth Bennet of St. Osyth
in Essex for cattle
Seth, R., Stories of... op. cit., p. 37;
Haining, P. (ed.) op. cit., p. 57
- Cysley Celles in Essex for
horses, beasts and a barn
Seth, R., Stories of ... op. cit. p. 38;
Haining, P. (ed.) op. cit. p. 59
- Joan Robinson of Walton in
Essex for cows, horses and
pigs
Seth, R., Stories of ... op. cit. p. 38 ;
Haining, P. (ed.) op. cit., p. 63
- Alice (Ales) Manfielde of
Thorpe in Essex for a horse
cows and a barn
Seth, R., Stories of... op. cit. p. 38;
Haining, P. (ed.) op. cit., p. 58
- 1583 Margery Barnes of St. Osyth
in Essex who kept imps for
bewitching beasts
L'EE op. cit., p. 83 - 84, 150, Cockburn,
Essex, Elizabeth I, op. cit., p. 245
- Joan Thorocke of Burneham in
Essex for pigs, horses and cows
L'EE, op. cit., p. 153 - 154; Cockburn.
Essex, Elizabeth I, op. cit., p. 252
- Alice Bolton of Chich St.
Osyth in Essex for pigs
L'EE, op. cit., p. 155; Cockburn, Essex,
Elizabeth I, op. cit., p. 253
- Mother Gabley of Kings Lynn in
Norfolk for calling up storms
Hole, C. Witchcraft in England, London,
1945, p. 41 - 42
- 1584 Agnes Byllinge of Northokenden
in Essex for pigs, sheep and a
heifer
L'EE. op. cit., p. 151; Cockburn, Essex,
Elizabeth I, op. cit., p. 246
- Elizabeth Brooke of Great
Leighes in Essex for cows,
horses and hogs
L'EE, op. cit., p. 151; Cockburn, Essex,
Elizabeth, I., op. cit., p. 245
- Thomas Kynge of South Hanning-
field in Essex for a horse, cow
and pig
L'EE, op. cit., p. 152; Cockburn, Essex,
Elizabeth, I., op. cit., p. 247
- Joan Thorocke of Burneham in
Essex for bewitching pigs,
horses and cows
L'EE, op. cit., p. 153, 154; Cockburn,
Essex, Elizabeth, I , op. cit., p. 252

Year

- 1584 Alice Bolton of Chich St. L'EE, op. cit., p. 155; Cockburn, Essex,
 Cont. Osyth in Essex for pigs Elizabeth, I, op. cit., p. 253
 (and also Elizabeth Lumney)
- Alice Dragge of Finchinfields L'EE. op. cit., p. 156; Cockburn, Essex,
 for pigs Elizabeth I, op. cit., p. 264
- Joan Thatcher of Lawford in L'EE, op. cit., p. 150
 Essex for cows, sheep, pigs
 and a horse
- 1585 Margaret Harkett of Stanmore Thomas, K., op. cit., p. 663
 in Middlesex for horses, peas
 and brewing
- Lettice (Letucia) Tybold of L'EE op. cit., p. 155; Cockburn, Essex,
 Maplested in Essex for heifers Elizabeth I, op. cit., p. 259 - 260
- Margaret Strangwitche of Bat- Cockburn, Surrey, Elizabeth I, op. cit.
 tersesea in Surrey for a cow p. 379
- Anne Bonner of Rayleigh in Cockburn, Essex, Elizabeth I, op. cit.
 Essex for horses p. 270
- 1586 Anne Joyce of Stanforde Ryvers L'EE, op. cit., p. 157; Cockburn, Essex,
 in Essex for sheep and pigs Elizabeth I, op. cit., p. 277
- 1587 Jennet/Joan Preston of Little Catlow, R. The Pendle Witches, Nelson,
 Sampford for cows 1976, p. 16; L'EE, op. cit., p. 87, 158;
 Frances Preston, her sister, C ockburn, Essex, Elizabeth I, op. cit.
 for cows, also in Essex p. 294
- Agnes Morris of Stevenge, L'EE, op. cit., p. 159
 Hertfordshire, for a cow
- Rose Clarens of Great Sampford L'EE, op. cit., p. 158; Cockburn, Essex,
 in Essex for pigs, cows and a Elizabeth I, op. cit., p. 295
 horse
- Alice Bust of Alphamstone in L'EE, op. cit., p. 159; Cockburn, Essex,
 Essex for pigs and a horse Elizabeth I., op. cit., p. 304
- Clements Sownde of Leigh in Cockburn, Surrey, Elizabeth I op. cit.,
 Surrey for a cow and calf p. 304, L'EE, op. cit., p. 160
- Joan Gibson of Messing in Cockburn, Essex, Elizabeth I op. cit.,
 Essex for a windmill p. 304
- 1588 Margaret Harrison of Harwell L'EE, op. cit., p. 161; Cockburn, Essex,
 in Essex for sheep, pigs and Elizabeth I, op. cit., p. 312 - 313
 cows
- 1589 Widdow Wells of Allington Thomas, K. op. cit., p. 665 - 666;
 for bewitching pigs Hamilton, G. Books of Examinations and
 Depositions, Southampton Record Society,
 1914, p. 158 - 159

Year

1589	Sibil Preston of Effingham in Surrey for horses	L'EE, op. cit., 166; Cockburn, Surrey, Elizabeth I, op. cit., p. 337
	Richard and Agnes Dunne of Waltham Holy Cross in Essex for horses	L'EE, op. cit., p. 164; Cockburn, Essex, Elizabeth I, op. cit., p. 335
	Joan Dering of Thaydon Garnon in Essex for a milk pail and cheese makings	L'EE, op. cit., p. 165; Cockburn, Essex, Elizabeth I, op. cit. p. 337
	Edward Roydon of Haylesham in Kent for a cow and a horse	L'EE, op. cit. p. 163
	Helen Browne of Aspenden in Hertfordshire for a cow	Hertfordshire County Records of Quarter Sessions (now Published)
1590	Elizabeth White of Boxley in Kent for a cow	L'EE op. cit., p. 170; Cockburn, Kent, Elizabeth I, op. cit., p. 305
	Juliana Cocke of Ashdon in Essex for horses, cows and calves	L'EE, op. cit., p. 171; Cockburn, Essex, Elizabeth I, op. cit. p. 370
	Mary Burgis of Bemoy in Hertfordshire for a horse	L'EE, op. cit., p. 169
1591	Margery Collyns of Woking in Surrey for an ox	L'EE, op. cit., p. 172; Cockburn, Surrey, Elizabeth I, op. cit., p. 367
	Ellen (Helen) Graye of Dagenham in Essex for a cow, cream and butter	L'EE, op. cit., p. 170; Cockburn, Essex, Elizabeth I, op. cit., p. 369
	Margaret Rooman of Bocking in Essex for a cow	L'EE, op. cit., p. 170; Cockburn, Essex, Elizabeth I, op. cit., p. 370
	Agnes Whilland of Dagenham in Essex for a sow, cow and a horse	L'EE, op. cit., p. 171; Cockburn, Essex, Elizabeth I, op. cit., p. 370
1592	Audrey Mathew of Great Dunmowe for causing cattle to die	L'EE op. cit., p. 174; Cockburn, Essex, Elizabeth I, op. cit., p. 389 - 390
	Mary Hamont of Walkerne in Hertfordshire for bewitching horses, hogs and cows	L'EE, op. cit., p. 174 - 175
	Jane Wallys of Stebbing in Essex for a cow and a horse	L'EE, op. cit., p. 174; Cockburn, Essex, Elizabeth I, op. cit., p. 388.
	Margery Dickes/Thatcher of Bradfield in Berkshire for pigs	L'EE, op. cit., p. 173

Year

- 1593 Joan Garrett of Hatfield in Hertfordshire for death of a horse L'EE, op. cit., p. 178
- Elizabeth Esterford of Hedingham Sybbell for mares and cows L'EE, op. cit., p. 400, 406; Cockburn, Essex, Elizabeth I op. cit., p. 175
- Agnes Stirt of Great Bookham in Surrey for horses and oxen Cockburn, Surrey, Elizabeth I, op. cit., p. 390
- Joan Foster of Stansted in Kent for a horse L'EE, op. cit., p. 179; Cockburn, Kent, Elizabeth I, op. cit., p. 345
- Alice Alberte of Felsted in Essex for sheep, a pig and a cow and calf L'EE, op. cit., p. 175; Cockburn, Essex, Elizabeth I, op. cit., p. 338
- 1594 Agnes Bett of Saffron Walden in Essex for a calf L'EE, op. cit., p. 180; Cockburn, Essex, Elizabeth I, op. cit., p. 414
- Stephen and Alice Hugrave of Alderton in Suffolk for pigs and cows L'EE, op. cit., p. 181; Cockburn, Essex, Elizabeth, I, op. cit., p. 417
- Mary Belsted/Mudleton of Boreham in Essex for a mare and pigs L'EE, op. cit., p. 181; Cockburn, Essex, Elizabeth I, op. cit., p. 418
- Bridget Hayle of Thorpe-le-Soken in Essex for a horse L'EE, op. cit., p. 182; Cockburn, Essex, Elizabeth I, op. cit., p. 425
- 1595 Alice Jekyn of Hinxhill in Kent for pigs and heifers Cockburn, Kent, Elizabeth I, op. cit., p. 368
- Grace and John Trower and John Cremer of Ingrave/Ingalstone in Essex for horses and cows L'EE, op. cit., p. 183, Cockburn, Essex, Elizabeth I, op. cit., p. 435
- 1596 Alice Marten/Tosby of Bletchingly in Surrey for sheep L'EE, op. cit., p. 184; Cockburn, Surrey Elizabeth I, op. cit., p. 424
- Alice Crutch of Great Trynge in Surrey for horses L'EE, op. cit., p. 185
- 1597 Janet Wishart of Aberdeen for fowls, oxen, bloody milk and winds. Also her son, Thomas Leys on the same charges MacLeod, N.A., Scottish Witchcraft, St. Ives, 1975, p. 13 - 15; Larner, C. et.al A Source Book of Scottish Witchcraft, Glasgow, 1977, p. 174
- 1598 Mary Taylor of Hertford in Hertfordshire for pigs L'EE, op. cit., p. 186
- 1600 Isabella Whyte of Purley in Surrey for sheep, cows and pigs L'EE, op. cit., p. 187; Cockburn, Essex, Elizabeth I, op. cit., p. 491 - 492
- Alice Bakett of Great Gaddesden in Hertfordshire for a cow L'EE, op. cit., p. 188

Year

- 1601 Alice Colier of Wearmouth for causing a cow to miscarry Rushton, P. Northern History, 18, 1982, p. 116- 132
- Lucy Eltheridge of Thorpe-le-Soken in Essex for sheep L'EE, op. cit., p. 190, Cockburn, Essex, Elizabeth I, op. cit. p. 527
- Mercy Hill of Borley in Hertfordshire for a cow L'EE, op. cit., p. 191
- Alice Trevisard of Hardness in Devon for ale Thompson, J. "Her Good Name and Credit", unpublished doctoral thesis for University of Cincinnati, 1987, p. 82 - 83 DRO/Uncatalogued/d. 3248 Okehampton Borough Sessions Book, 1648 - 1658; Kittredge, G.L., op. cit., p. 19
- Robert Todd of Morpeth in Northumberland for cattle Rushton, P., op. cit., p. 120
- Margaret Simpson of Durham for a cow and goods *ibid.* p. 128
- 1602 Elizabeth Pegge of Braintree in Essex for cows L'EE, op. cit., p. 192; Cockburn, Essex, Elizabeth I, op. cit., p. 541 - 542
- Audrey Pond of Old Saling in Essex for a horse L'EE, op. cit., p. 192; Cockburn, Essex, Elizabeth I, op. cit., p. 542
- 1603 Margery Wilson of Black Notley in Essex for a cow L'EE, op. cit., p. 193; Cockburn, Essex, James I, op. cit., p. 5
- Joan Roath/Wroth of Great Bentley in Essex for cows L'EE, op. cit., p. 194; Cockburn, Essex, James I, op. cit., p. 6
- Anne Horne of Halsted in Essex for hens and chickens L'EE, op. cit., p. 194; Cockburn, Essex, James I, op. cit., p. 7
- Agnes Whittenbury of Auston in Hertfordshire for pigs L'EE, op. cit., p. 195
- 1606 Isobel Grierson of Prestopans who soured ale Seth, R., In the Name of the Devil, London, 1969, p. 56, Robbins, R.H., op. cit., p. 235 - 236; Lerner, C., et. al. op. cit. p. 10; 10.3.1607 JC 2/4
- 1609 Joan Smythe of Staffordshire for a cow Michaelmas Quarter Sessions Rolls, 1609, Staffordshire
- 1610 K/Catherine Lawrett of Colne Wake/s in Essex for a horse L'EE, op. cit., p. 88, 201; Kittredge, G.L., op. cit., p. 44; Cockburn, Essex, James I, op. cit., p. 78
- 1611 Richard and Anne Jonn of Northokenden in Essex for a horse L'EE, op. cit., p. 203; Cockburn, Essex, James I, op. cit., p. 114

Year

- 1612 Anne Whittle or "Chattox", Lancashire for killing a cow, spoiling ale and charming milk
Bennet, W. The Pendle Witches, Lancashire 1980, p. 11 - 16; Catlow, R., op. cit. p. 7; Peel, E and Southern, P. The Trials of the Lancashire Witches, Newton Abbot, 1969, p. 23
- Margaret Pearson of Padiham in Lancashire for bewitching a mare
Bennet, W., op. cit., p. 30; Catlow, R, op. cit., p. 19; Peel, E. and Southern, P. op. cit., p. 21 - 22
- Elizabeth Southern or "Demdike" Lancashire for milk and a cow
Peel, E. and Southern, P., op. cit., p. 21 - 22
- Agnes Smith of Ashwell in Hertfordshire for horses
L'EE, op. cit., p. 204
- 1613 Thomas Hamond of Appesden in Hertfordshire for horses
L'EE, op. cit., p. 206
- Mary and Mother Sutton of Milton near Bedford in Bedfordshire for cattle
Notestein, W., op. cit., p. 107 - 118
- 1615 Anne Smith of Ashwell in Hertfordshire for causing a horse to die
L'EE, op. cit., p. 206;
- Grace Tabour of Stowe Morris in Essex for cows
L'EE, op. cit., p. 206; Cockburn, Essex, James I, op. cit., p. 145
- 1616 Sarah Godfrie of Lambourne in Berkshire for witching activities in Wiltshire but she was tried in Essex
L'EE, op. cit., p. 208; Cockburn, Essex, James I, op. cit., p. 170
- 1617 Margaret Pannell of Salehurst in Sussex for pigs
L'EE, op. cit., p. 209
- 1618 Joan, Margaret and Phillip(a) Flower of Lincolnshire for storms and cattle
Robbins, R.H., op. cit., p. 205
- Margaret Barclay of Irvine in Ayrshire for sinking a ship
Seth, R. In the Name..., op. cit., p. 60 - 67; Larner, C., et. al., op. cit., p. 65; 2.1.1618 Registrar of the Privy Council Vol. 77 p. CCXXXIX; 3.6.401
- Joan Messenger of Berkhamsted Mary in Hertfordshire for horses
L'EE, op. cit., p. 211
- 1620 Jennet Wilkinson of Lancashire caused animal sickness and death
Thomas, K., op. cit., p. 665

Year

- 1621 Elizabeth Sawyer of Edmonton for the deaths of beasts Dekker, T. The Witch of Edmonton, 1621, Kingston, J., op. cit., p. 53
- Anne Hewghes of Great Leighes in Essex for a cow L'EE, op. cit., p. 212; Cockburn, Essex, James I, op. cit., p. 247
- 1626 Helen Pedder of South Halsted in Essex for hens and pigs L'EE, op. cit., p. 213
- 1628 Katharine Oswald of Niddrie near Edinburgh for bewitching a cow Larner, C., et. al., op. cit. p. 84
2.1.1628 Niddry, Registrar Privy Council Vol. 3, p. 206. 278. 290. 293
- 1629 Isobel Young for stopping a watermill Seth, R. In the Name... op. cit. p. 14
- 1633 Marion Richart/Layland in the Orkney Isles for cows and fish L'EE, op. cit., p. 287 - 289, Larner, C. et. al. op. cit., p. 108; Registrar of the Privy Council, Edinburgh, 1880 2nd S Vol. 5 p.544 - 548, 551 - 555
- Elizabeth Spacy and Goody Mathew of Little Laver in Essex for cattle Macfarlane, A., op. cit., p. 304; Essex Record Office Archdeaconry Act book D/AEA/2
- 1634 Faith Say/Sage of High Laver in Essex for cattle, butter, cheese and beer Macfarlane, A., op. cit., p. 305
- 1637 Mother Palmer of Suffolk for beer Thomas, K., op. cit., p. 661
- Goodwife Rose of Bedford in Bedfordshire for destroying peas with worms Newman, L.F., Folklore, March, 1946, p.25
Hole, C. Mirror of Witchcraft, London, 1957, p. 91
- 1639 Margery Reynold of Wrecklesham in Surrey for a cow L'EE, op. cit., p. 219
- 1641 Anne West, the elder, of Lawford in Essex for a pig L'EE, op. cit., p. 220; Deakin, R. op. cit., p. 78 - 79
- 1643 Marion Cumlaquoy of Birsay in the Orkney Isles for crops and rain Summers, M., op. cit., p. 229; Larner, C. et. al., op. cit., p. 191
- 1644 Marion Pardoun of Hillswick in the Shetland Isles for a whale overturning a fishing boat Nicolson, J.R., Shetland, Newton Abbot, 1972, p. 52 - 53
- 1645 Margaret Moone of Thorpe in Essex for a cow L'EE, op. cit., p. 225; Deakin, R., op. cit., p. 96; Haining, P. (ed.) op. cit., p. 160 - 163
- Ailicia Marsh of Suffolk for pigs L'EE, op. cit., p. 293; British Museum Additional MS 27402, fos. 104 - 121

Year

1645 Cont.	John Chambers of Suffolk for a bullock and a horse	L'EE, op. cit., p. 293; Brit. Mus. Add. MS 27402, fos. 104 - 121
	Lidea Taylor of Suffolk for cattle	L'EE, op. cit., p. 294; Brit. Mus. Add. MS, 27402, fos. 104 - 121
	Ino/Jno Goodinge of Suffolk	L'EE, op. cit., p. 295; Brit. Mus. Add. MS 27402, fos. 104 - 121
	Susan Marchant of Hintlesham in Suffolk for a lame cow	L'EE, op. cit., p. 297; Brit. Mus. Add. MS 27402, fos. 104 - 121
	Susanna Stegold of Suffolk for pigs	L'EE, op. cit., p. 298; Brit. Mus. Add. 27402, fos. 104 - 121
	Tho(masine) Ratlifnup of Shelley in Suffolk for pigs and cattle	L'EE, op. cit., p. 300; Brit. Mus. Add. MS. 27402, fos. 104 - 121
	John Lewis of Suffolk for cattle	L'EE, op. cit., p. 300; Brit. Mus. Add. MS 27402, fos. 104 - 121
	Maria Bush of Bacto In in Suffolk for cows and turkeys	L'EE, op. cit., p. 301; Brit. Mus. Add. MS. 27402, fos. 104 - 121
	Margaret Benet of Suffolk for cattle	L'EE, op. cit., p. 301; Brit. Mus. Add. MS. 27402, fos. 104 - 121
	Ellen Greenelif of Suffolk for a cow and a horse	L'EE, op. cit., p. 302; Brit. Mus. Add. MS. 27402, fos. 104 - 121
	Anna Palmer of Suffolk for beer	L'EE, op. cit., p. 305; Brit. Mus. Add. 27402, fos. 104 - 121; Stearne, J. <u>A Confirmation of Witchcraft</u> , London, 1648, p. 28
	Thomas and Mary Everard of Holsworth in Suffolk for beer, sheep and deer	L'EE, op. cit., p. 301; Brit. Mus. Add. 27402, fos. 104 - 121; Kittredge, G.L., op. cit., p. 90
	Jana Linstead of Suffolk for hindering baking	L'EE, op. cit., p. 310; Brit. Mus. Add. Ms. 27402, fos. 104 - 121
	Ann and Mary Smith of Glenham in Suffolk for cattle	L'EE. op. cit., p. 311; Brit. Mus. Add. MS. 27402, fos. 104 - 121
	Joanna Potter of Suffolk for fowls	L'EE, op. cit., p. 298; Brit. Mus. Add. MS. 27402, fos. 104 - 121
	Elizabeth Clark/Bedlingfield of Mannintree in Essex for a horse and raising winds	Haining, P., (ed.) op. cit., p. 142 - 146
	Elizabeth Gooding of Mannintree in Essex for a horse	ibid. p. 146 - 147
	Anne Leech of Misley in Essex for cows	ibid. p. 147 - 149

Year

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| 1645 | Joyce Boanes of Essex
Cont. for lambs and a calf | ibid. p. 168 - 169 |
| | Susan Cock of Essex for
pigs and sheep | ibid., p. 169 - 170 |
| | Margaret Landishe of Essex
for pigs | ibid. p. 169 - 170 |
| | Rebecca Jones of St. Osyth
in Essex for a pig | ibid. p. 170 - 172 |
| | Busb of Barton for turkeys
and cows | Stearne, J., op. cit., p. 29 |
| | Anne Cricke of Hitcham for
a pig | ibid. p. 30 |
| | Cherrie of Thrapston in North-
amptonshire for cattle | ibid. p. 35 |
| | John Bysack/Gleede of Walding-
field in Suffolk for fowls,
sheep, horses and cattle | ibid. p. 41 - 42 |
| 1647 | Dorothy Ellis of the Isle of
Ely in Cambridgeshire for
cattle | L'EE, op. cit., p. 55; Haining, P.
(ed). op. cit., p. 22 |
| | Hester Browne of Higham in
Kent, for a cow, horses and
sheep | L'EE, op. cit., p. 232 |
| 1648 | Anne Randall of Louenham in
Suffolk for horses and pigs | Stearne, J., op. cit., p. 22 - 23 |
| | Young man of Denford in
Northamptonshire for cattle | ibid., p. 23 |
| | Joan Ruceulver of Powstead in
Suffolk for a bullock | ibid. p. 27 - 28 |
| | John Palmer of St. Albans in
Hertfordshire for a horse | Seth, R. <u>Stories of...</u> op. cit., p. 107;
Stearne, J., op. cit., p. 27 |
| | Elizabeth Knott of St. Albans
in Hertfordshire for a cow | <u>Seth, R. Stories of...</u> op. cit., p. 107 |
| | Sarah Kempsey of Broadhurst
in Kent for horses and cows | L'EE, op. cit., p. 235 |
| 1650 | William and Prudence Litch-
field of Yardley in Hertford-
shire for a cow | ibid. p. 236 |
| | Anne Mann of Ashwell in Hert-
fordshire for horses | ibid. p. 236 |

Year

- 1650 Elizabeth Balden of Knebworth *ibid.* p. 236
Cont. in Essex for a horse
- Mary Welby of Newport Pond *ibid.* p. 236
in Essex for a horse
- 1652 Thomas and Jane Wilson of the L'EE *op. cit.*, p. 239
Isle of Grayne in Kent for pigs
and 33 quarts of wheat
- William Reynolds and the *ibid.* p. 240
Wilsons who bewitched 70
sheep together
- Thomas Creede of Cranebrook in *ibid.* p. 240 - 241
Kent for oats and horses, all
with Dorothy Avery
- Agnes Heightoe of Benenden in *ibid.* p. 242
Kent for pigs
- 1653 Susan Haveringe of West *ibid.* p. 243
Tilbury in Essex for horses
- Ellen/Eleanor Howell of Bruck- *ibid.* p. 244
land in Kent for horses, cows
and sheep
- Elizabeth Castle of Glaston- Somerset Record Office Q/SR 86 2/3-7
bury in Somerset for pigs and
cows
- 1654 Anne Rabbett of Staplehurst L'EE, *op. cit.*, p. 246
in Kent for a horse
- 1656 Jennet and George Benton of Hole, C. A Mirror... *op. cit.*, p. 97
Wakefield in Yorkshire for pigs
and horses
- 1657 Anne Ellis of Penly in Flint- Gwynn Williams, J. Journal of the Flint-
shire for cows shire Historical Society, Vol. 27,
p. 30 - 35
- 1658 Henry John James of Llanelvy *ibid.*, *op. cit.*, p. 28 - 30
in Flintshire for oxen and a
pig
- Johane (Joan) Badcock of Thompson, J., *op. cit.* p. 82 - 83;
Inwardleigh in Devon for cows DRO/Uncatalogued/D.3248, Okehampton
and milk Borough Sessions Book, 1648 - 58
- 1659 Magdalen Blair of Stirling Larner, C. *et. al.*, *op. cit.*, p. 252;
bewitched a horse SRO, JC 10/2, JC 26/26
- 1660 Mary Sharpe and Anne Cooper L'EE, *op. cit.*, p. 252
of Queenborough in Kent for
horses and a cow

Year

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| 1661 | Janet Cock of Dalkeith/
Musselburgh over the raking
of dung | Levack, P. <u>The Journal of British
Studies</u> , Vol. XX, No. 1, 1980, p. 101;
SRO 18th June, 1661, JC 26/27 |
| 1662 | Isobel Gowdie of Auldearn for
agricultural spells and an
informant | McLeod, N. op. cit., p. 17 - 24;
Larner, C., et. al., op. cit. p. 136 |
| | Christian Wilson of Dalkeith
for revenge for loss of goods | Levack, B.P., op. cit., p. 101 |
| 1664 | Rose Cullender of Bury St.
Edmunds in Essex, for lice and
bewitching a cart | Williams, S.R. and P.J. <u>Riding the
Nightmare</u> , New York, 1978, p. 120-121 |
| 1666 | Elizabeth of Kirk Arbory
on the Isle of Man for crops,
cattle and sheep | Craine, D. <u>Manannan's Isle</u> , Manx
Museum and The National Trust, 1955,
p. 19 - 25 |
| 1667 | Janet Macmurdoch of Kirkcud-
brightshire for cows, horses
and milk | Larner, C., et. al., p. 41, SRO JC 26/28 |
| 1671 | Bessie Paine of Kirkcudbright-
shire for cattle | Larner, C., et. al., p. 269 - 271;
SRO JC 26/38, JC 26/28 |
| 1673 | Mary Hunter of Birkside in
Northumberland for a horse | Hole, C. <u>A Mirror...</u> op. cit. p. 98 |
| 1674 | Anne Foster of Northampton
for a horse | Notestein, W., op. cit., p. 282;
Summers, M. op. cit., p. 151 |
| 1691 | Charles Hughes of Llanhasa in
Flintshire for cattle | Gwynn Williams, J. op. cit., p. 27 - 28 |
| 1699 | Margaret Bezok of Fortrose who
bewitched oxen | Larner, C., et. al., op. cit., p. 232;
SRO 6.10.1699 ffortross. |
| 1700 | Margaret Alexander of Glasgow
in Lanarkshire for a horse | SRO JC 26/81/D9 |
| 1712 | Jane Wenham of Walkerne in
Hertfordshire | Deakin, R., op. cit., p. 199; Guskin, P.J.
<u>Eighteenth Century Studies</u> , Vol. 15,
No. 1., Fall 1981, p. 48 - 71 |
| 1717 | Jony of Kirk Braddon on the
Isle of Man for cows and stop-
ping a mill from grinding flour | Craine, D., op. cit., p. 17 - 18 |
| 1751 | ? Osborne and Ruth Osborne
of Tring for pigs and calves | Newman, L.F., op. cit., p. 25 |

Those with Unsubstantiated
Dates

Bridget Wotton of Devon for a pig	Thompson, J., op. cit., p. 143; Exeter City Archives, Deposition Book, at DRO, Book 65, p. 1 - 2
Jane Baldwyn of Wymbleton for pigs	L'EE. op. cit., p. 123
Elsbeth McEwen of Dalry for a horse sweating blood	Larner, C., et al., op. cit., p. 231
Marion Peebles of the Shetland Isles for a cow and wrecking boats	Summers, M., op. cit., p. 229

APPENDIX IIADDITIONAL PLANTS RELATED TO LIVESTOCK AND
AGRICULTURAL PRODUCTION LOSSES IN SIXTEENTH
AND SEVENTEENTH CENTURY BRITAIN

Aconite, *Aconitum nappelus*
Ash, *Fraxinus excelsior*
Barley, *Hordeum vulgare*
Belladonna, *Atropa belladonna*
Beech, *Fagus sylvatica*
Bittersweet, *Solanum dulcamara*
Black knapweed, *Centuarea nigra*
Bladder soapwort, *Vaccacia pyramidata*
Beetroot, *Beta vulgaris*
Blue periwinkle, *Vinca major*
Bracken, *Pteridium aquilinum*
Buckwheat, *Fagopyrum sagittatum*
Burdock, *Arcyium lappa*
Buttercup, *Ranunculus*
Cabbage, *Brassica oleracea*
Celery (Wild), *Apium graveolens*
Chickweed, *Stellaria media*
Clover, *Trifolium*
Common valerian, *Valeriana officinalis*
Corn cockle, *Agrostemma githago*
Curled dock, *Rumex crispus*
Daphne, *Daphne mezereum*
Deadnettle, *Laminum amplexicaule*

Delphinium, Delphinium consolida
Dropwater, OEanthe crocata
Dropwort, Water, OEanthe phellandrium
Ergot, Claviceps purpurea
Fennel, Foeniculum vulgare
Field or Red Poppy, Papaver rhoeas
Flax or Linseed, Linum usitatissimum
Fool's Parsley, Aethusa cynapium
Foxglove, Digitalis purpurea
Garlic, Allium sativum
Hemlock, Conium maculatum
Horehound, white, Marrubium vulgare
Ivy, Hedera helix
Laburnum, Cytisus Laburnum
Lavender, Lavendula vera
Lily-of-the-Valley, Convallaria magalis
Lucerne, Medicago sativa
Lupins, Lupinus
Marjoram, Origanum onites
Meadow saffron, Colchium autumnale
Meadowsweet, Ammi majus
Mint, Mentha viridis
Oats, Avena sativa
Pheasant's Eye, Adonis annua
Potato, Solanum tuberosum
Prickly or Wild Lettuce, Lactuca serriola
Privet, Ligustrum vulgare
Prunus genus, stone fruits

Purslane, *Portulaca oleracea*
Ragwort, *Senecio jacobea*
Rape, *Brassica napus*
Ryegrass, *Lolium* genus
St. John's wort, *Hypericum perforatum*
Saffron, *Crocus sativus*
Sage, *Salvia officinalis*
Scarlet pimpernel, *Anagallis arvensis*
Small flowered mallow, *Malva parviflora*
Soapwort, *Saponaria officinalis*
Stagger weed, *Stachys arvensis*
Sweet Clover, *Metilotus alba*
Tall fescue, *Festuca arundinacea*
Thornapple, *Datura stramonium*
Traveller's Joy, *Clematis vitalba*
Turnip, *Brassica rapa*
Variegated Thistle, *Silybum marianum*
Water Hemlock, *Cicuta virosa*
Water Parsnip, *Sium latifolium*
White mustard, *Sinapsis alba*
Wild radish, *Raphanus raphanistrum*
Wood sorrel, *Oxalis acetosella*
Yewtree, *Taxus baccata*

BIBLIOGRAPHY

- Addison, J. The Illustrated Plant Lore, The Book Club Associates, Surrey, 1985.
- Ault, W.O. Open Field Farming in Medieval England, George Allen and Unwin Ltd., London, 1972.
- Bairaclı Levy, J. de Herbal Handbook for Farm and Stable, Rodale Press, Inc. Emmaus, Pennsylvania, 1977
- Barrington, J. Red Sky at Night, Michael Joseph Ltd., London, 1984.
- Beier, A.L. The Problem of the Poor in Tudor and Stuart England, Methuen and Co. Ltd., London, 1983.
- Bennett, W. The Pendle Witches, Lancashire County Council Library and Leisure Committee's Publications, 1980.
- Bindoff, S.T. Tudor England, Pelican, Harmondsworth, 1951.
- Bowen, E.G. Wales A Study in Geography and History, University of Wales Press, Cardiff, 1960
- Campbell, M. The English Yeoman Under Elizabeth and the Early Stuarts, Redwood, London, 1961.
- Cartwright, L. A Commonsense Guide to Medicinal Plants, Angus and Robertson, Sydney, 1985.
- Catlow, R. The Pendle Witches, Hendon Publishing Co. Ltd., Nelson, Lancashire, 1976.
- Chambers's Encyclopedia Volume ii, IX, Permagon Press, Oxford, 1966.
- Chartres, J.A. Internal Trade in England 1500-1700, Macmillan Press Ltd., London, 1977.
- Clark, P. (ed.) The European Crisis of the 1590's, George Allen and Unwin, Ltd., London, 1985.
- Clay, C.G.A. Economic Expansion and Social Change: England 1500 - 1700, Vol. I People, land and towns, Cambridge University Press, Cambridge, 1984.
- Craine, D. Manannan's Isle, The Manx Museum and The National Trust, Maclehouse and Co. Ltd., 1955.
- Darby, H.C. The Draining of the Fens, Cambridge University Press, Cambridge, 1956
- Deacon, R. Mathew Hopkins, The Witchfinder General, Frederick Muller Ltd., London, 1976.

- Elton, G.R. England Under the Tudors, Methuen and Co. Ltd., London, 1955.
(ed.) The New Cambridge Modern History, Vol. II The Reformation, 1520 - 1559, Cambridge University Press, Cambridge, 1958.
- Emboden, W. Narcotic Plants, Studio Vista, London, 1972.
- Everist, S.L. Poisonous Plants of Australia, Angus and Robertson, London, 1981.
- Fisher, J. The Origins of Garden Plants, Constable and Co. Ltd., London, 1982
- Fussell, G.E. The English Dairy Farmer 1500 - 1900, Frank Cass and Co. Ltd., London, 1966.
Old English Farming Books 1523 - 1793, Aberdeen Rare Books, No. 63, Aberdeen, 1978.
- Grieve, M. A Modern Herbal, edited by Leyel, C.F., Penguin Books, Harmondsworth, 1978.
- Griggs, B. Green Pharmacy A History of Herbal Medicine, Norman and Hobhouse Ltd., London, 1981.
- Haigh, C. Reformation and Resistance in Tudor Lancashire, Cambridge University Press, Cambridge, 1975.
- Hay, D. Europe in the 14th and 15th Centuries, Longman, London, 1966.
- Hole, C. A Mirror of Witchcraft, Chatto and Windus, London, 1957.
English Home-Life 1500 - 1800, Batsford Ltd., London, 1947.
Witchcraft in England, Batsford Ltd., London, 1945.
- Hoskins, W.G. The Making of the English Landscape, Hodder and Stoughton, London, 1978.
Provincial England, Macmillan and Co. Ltd., London, 1965.
- Houlbrooke, R.A. The English Family 1450 - 1700, Longman, London, 1984.
- Hubbard, C.E. Grasses, Penguin Books Ltd., Harmondsworth, 1968.
- Hungerford, T.G. Diseases of Livestock, McGraw Hill Book Co., Sydney, 1975, 8th edition.
- Jones, Whitney,
R.D. The Mid-Tudor Crisis 1539 - 1563, Macmillan Press Ltd., London, 1973.
- Kerridge, E. Agrarian Problems in the Sixteenth Century and After, George Allen and Unwin Ltd., London, 1969.
- Kingston, J. Witches and Witchcraft, The Danbury Press, Aldus Books Ltd., London, 1976.

- Kittredge, G.L. Witchcraft in Old and New England, Russell and Russell, New York, 1956.
- The Land, (Newspaper) Thursday, 18th March, 1982, p. 55 (N.S.W.)
- Larner, C. Enemies of God The Witch Hunt in Scotland, Chatto and Windus, London, 1981.
- Witchcraft and Religion The Politics of Popular Belief, Basil Blackwell, Oxford, 1984.
- Loewenfeld, C. and Back, P. The Complete Book of Herbs and Spices, A.H. and A.W. Reed Ltd., Wellington, 1976.
- Lehane, B. The Power of Plants, John Murray Ltd., London, 1977.
- L'Estrange Ewen, C. Witch Hunting and Witch Trials, Kegan Paul, London, 1929.
- Le Strange, R. A History of Herbal Plants, Angus and Robertson, London, 1977.
- Lewis, W.H. and Elvin-Lewis, M.P.F. Medical Botany, John Wiley and Sons, New York, 1977.
- Linklater, E. Orkney and Shetland, Robert Hale, London, 1965.
- McBarron, E.J. Poisonous Plants, Inkata Press Pty. Ltd., Melbourne, 1983.
- MacDonald, P., Edwards, R.A. and Greenhalgh, J.F.D. Animal Nutrition, Oliver and Boyde, Edinburgh, 1969.
- Macfarlane, A. Witchcraft in Tudor and Stuart England, Routledge and Kegan Paul, London, 1970.
- MacLeod, N.A. Scottish Witchcraft, James Pike and Sons, Ltd., St. Ives., Cornwall, 1975.
- Marwick, M.G. (ed.) Witchcraft and Sorcery: Selected Readings, Penguin, Harmondsworth, 1970.
- Mingay, G.E. (ed.) The Agricultural Revolution: Changes in Agriculture 1650 - 1880, A. and C. Black, London, 1977.
- Mitchell, J.B. (ed.) Great Britain Geographical Essays, Cambridge University Press, Cambridge, 1962.
- Nicolson, J.R. Shetland, David and Charles Pty. Ltd., Newton Abbot, Devon, 1972.
- Notestein, W. A History of Witchcraft in England from 1558 - 1718, Oxford University Press, London, 1911.
- O'Dell A.C. and Walton, K. The Highlands and Islands of Scotland, Thomas Nelson and Sons, London, 1962.
- Parker, W.N. and Jones, E.L. (eds.) Essays in Agrarian Economic History, Princeton University Press, Princeton, 1975.

- Peel, E. and Southern, P. The Trials of the Lancashire Witches, A Study in 17th Century Witchcraft, David and Charles, Newton Abbot, Devon, 1969.
- Penman, S. Here Be Dragons, William Collins, Glasgow, 1986.
- Plowden, A. Tudor Women: Queens and Commoners, Weidenfeld and Nicolson, London, 1979.
- Priestly, H. Voice of Protest, Leslie Frewin, London, 1968.
- Quaife, G.R. Wanton Wenches and Wayward Wives, Croom Helm Ltd., London, 1979.
- Ramsey, P. Tudor Economic Problems, Victor Gollancz Ltd., London, 1972.
- Robbins, R.H. Encyclopedia of Witchcraft and Demonology, Crown Publishers Inc. New York, 1965.
- Rohde. E.S. The Old English Herbals, Dover Publications Inc., New York, 1971.
- Rose, F. The Observers' Book of Grasses, Sedges and Rushes, Frederick Warne and Co. Ltd., London, 1966.
- Rosen, B. (ed.) Witchcraft, Edward Arnold, London, 1969.
- Rowse, A.L. The England of Elizabeth, Macmillan and Co. Ltd., London, 1950.
- Schauenberg, P, and Paris, F. Guide to Medicinal Plants, Keats Publishing Inc., Conneticut 1977.
- Schenk, G. The Book of Poisons, Weidenfeld and Nicolson, London, 1956.
- Schmidt, A.J. The Yeoman in Tudor and Stuart England, Folger Shakespeare Library, U.S.A., 1961.
- Sebold, H. Witchcraft and the Heritage of Heresy, Elsevier North Holland Inc., New York, 1978.
- Senior, M. Portrait of South Wales, Robert Hale, London, 1974.
- Seth, R. In the Name of the Devil; Great Scottish Witchcraft Cases, Arthur Barker Ltd., London, 1969.
- Stories of Great Witch Trials, Arthur Barker Ltd, London, 1967.
- Sharpe, J.A. Crime in Early Modern England 1550 - 1750, London, 1984.
- Simmonds, N.W. (ed.) Evolution of Plant Crops, Longman, London, 1976.
- Smith, A.G.R. The Emergence of a Nation State 1529 - 1660, Longman, London, 1984.

- Starhawk, The Spiral Dance. A Rebirth of the Ancient Religion of the Great Goddess, Harper and Rowe, New York, 1979.
- Stary, F and Jirasek, V. Herbs, Hamlyn, London, 1978.
- Stenton, D.M. The English Woman in History, George Allen and Unwin, New York, 1957.
- Summers, M. A Geography of Witchcraft, Kegan Paul, London, 1927.
- Thirsk, J. (ed.) The Agrarian History of England and Wales, Vol. IV 1500 - 1640, Cambridge University Press, Cambridge, 1967.
- Thomas, K. Man and the Natural World, Changing Attitudes in England 1500 - 1800, Penguin, Harmondsworth, 1984.
- Religion and the Decline of Magic, Penguin, Harmondsworth, 1973.
- Trevelyan, G.M. English Social History, Longmans, London, 1946.
- Trow-Smith, R. A History of British Livestock Husbandry to 1700, Routledge and Kegan Paul, London, 1957.
- Vaughan-Thomas.W. Wales A History, Michael Joseph, London, 1985.
- Waters, C.M. An Economic History of England 1066 - 1874, Oxford University Press, London, 1945.
- Williams, D. A Short History of Modern Wales, John Murray, London, 1961.
- Wrightson, K. English Society 1580 - 1680, Hutchinson, London, 1982.
- The World Book Encyclopedia, Vol. 21, World Book Inc., Chicago, 1983.
- Youngs, J. Sixteenth Century England, Penguin, Harmondsworth, 1984.

ARTICLES

- Burstein, S.R. "Aspects of the Psychopathology of Old Age". British Medical Bulletin, 1949, Vol. 6, 1 - 2, p. 63 - 71.
- Dent, C. "Nitrate and nitrite poisoning of Livestock". Agfact, N.S.W. Department of Agriculture, Agdex 400 - 657
- Fenton, A. "Skene of Hallyard's Manuscript of Husbandrie". The Agricultural History Review, Vol. XI, 1963, Part II p.65-81
- Fussell, G.E. "Crop Nutrition in Early Tudor and Stuart England". The Agricultural History Review, Vol. III, Part II, 1955 p. 95 - 106

- Gwynn Williams, J. "Witchcraft in Seventeenth Century Flintshire", The Journal of the Flintshire Historical Society, Vol. 27, Part II, p. 5 - 35
- Guskin, P.J. "The Context of Witchcraft; The Case of Jane Wenham". Eighteenth Century Studies, Vol. 15, No. 1 Fall, 1981, p. 48 - 71
- Hoskins, W.G. "Harvest Fluctuations and English economic history, 1480 - 1619". The Agricultural History Review, 12, 1964, p. 28-46.
"Harvest Fluctuations and English Economic History, 1620 - 1759". The Agricultural History Review, 16, 1968, p. 15-31.
- Horsley, R.A. "Who were the witches? The social roles of the accused in the European Witch Trials". Journal of Interdisciplinary History, 9, Spring 1979, p. 688 - 715.
- Levack, B.P. "The Great Scottish Witch Hunt of 1661 - 1662". The Journal of British Studies, Vol. XX, No. 1, Fall, 1980, p. 90 - 108.
- McLachlan, H.V. "Witchcraft belief and social reality". The Philosophical Journal, Vol. 14, 1977, p. 99 - 110.
- Thomas, K. "Witches", The Listener, 83, 12 March, 1970, p. 339 - 342
- Whyte, I.D. "Written leases and their impact on Scottish agriculture in the 17th Century". The Agricultural History Review, Vol. 27, 1979, Part I, p. 1 - 9.
- Young, A. Elizabeth Lowys: Witch and social victim". History Today, Vol. XXII, No. 12, December, 1972.
- Zell, M. "Accounts of a Sheep and Corn Farm, 1558 - 60". The Agricultural History Review, Vol. 27, 1979, Part II, p. 122 - 128

PRIMARY SOURCES

- Culpeper, N. Complete Herbal, reprinted by Omega Books, Ware, Hertfordshire, 1985.
- Cockburn, J.S. Calendar of Assize Records, Elizabeth I; Essex, Hertfordshire, Kent, Surrey and Sussex. James I; Essex, Hertfordshire, Kent, Surrey and Sussex. Her Majesty's Stationery Office, London, 1975
- Durham Consistory Court Depositions, 10b, fols. 415, 419, and 420.
- Essex Record Office; Archdeaconry Act Book:
D/AEA/2 (816)
D/AEA/2 (1,207c)

- Essex Record Office, Quarter Sessions Rolls:
 Q/SR 21/19
 Q/SR 120/27, 28 1592
 Q/SR 148/141, 142
 Q/SR 152/172
- Fitzherbert, J. The Boke of Husbondrye, London, 1534
- Gerard, J. Herball, compiled by Woodward, M. from an edition by T.H. Johnson, printer, London, 1636, George Howe, London, 1927.
- Haining, P. (ed.) The Witchcraft Papers: Contemporary Records of the Witchcraft Hysteria in Essex 1560 - 1700, Hale, London, 1974.
- Hamilton, G.H. Book of Examinations and Depositions 1570 - 1594, Southampton Record Society.
- Hampshire Record Office, Deposition Books in Consistory Court Cases, 1577
- Hertfordshire County Council Records of Quarter Sessions (no details given by archivist)
- University College of North Wales Kimmel MS. 1078, No. 5, 8, 9.
- Larner, C; Lee C.H. and McLachlan, H.V. A Source Book of Scottish Witchcraft, University of Glasgow 1977.
- L'Estrange Ewen, C. (ed.) Witch Hunting and Witch Trials. The Indictments for Witchcraft from the Records of 1373 Assizes held for the Home Circuit, A.D. 1559 - 1736, London, 1929.
- Markham, G. Cheap(e) and Good Husbandry, London, 1676.
The English Housewife, London, 1683.
- Robinson, C.B. (ed.) Rural Economy in Yorkshire in 1641, being the Farming and Account Books of Henry Best, of Elmswell, in the East Riding of the County of York. Surtees Society XXXIII, Durham, 1857.
- Somerset Record Office Quarter Sessions Rolls, Q/SR 86 2/3 - 7
- Staffordshire Michaelmas Quarter Sessions Rolls, 1609.
- Stearne, J. A Confirmation and Discovery of Witchcraft, London, 1648, British Library Photographic Services.
- Topsell, E. History of Four-Footed Beasts, London, 1607.
- Tusser, T. Five Hundred Points of Good Husbandry, London, 1573.
- Wales National Library Aberystwyth, Wales 4/993/5/7-8

OTHER

Hickey, Kevin, Livestock Officer, Pigs, Department of Agriculture, New South Wales, Australia.

Parkin, Thomas Edwin, Flour miller and Bread manufacturer, Britain and Australia.

Thompson, J. "Her Good Name and Credit" The Reputation of Women in
Seventeenth Century Devon. Doctoral thesis, unpublished,
University of Cincinnati, 1987.