

This summary is adapted from the book 'History of Seed Crushing in Great Britain' by Harold W Brace, Land Books Limited, London, 1960.

Oil milling

1 Historical background

There is mention of oil-milling in England from the fourteenth century. The seeds that were crushed were cole seed (now called rape seed), hempseed and linseed. The most common was probably rape seed, since rape could also be used as an animal feed and was an indigenous crop. Hemp and flax were mainly used for fibre production, and quantities were imported. A great deal of flax was shipped into Cleveland, from the Baltic, during the seventeenth and eighteenth centuries. Another advantage of crushing rape seed was its higher yield of oil: 40% compared with 35.5% for linseed and 32% for hempseed. Rape seed oil was used in the preparation of wool and as lamp oil.

Oil mills were either water or wind driven. A cam shaft operated a line of vertical stampers, which fell repeatedly onto sacks containing the seeds. The oil was squeezed through the sacking into a collecting trough. After this initial cold pressing, the seeds still contained an appreciable quantity of oil. They were heated in pans with a little water and put in a screw press to yield more oil. The final residual oil cake was used as fuel, fertiliser or cattle feed.

During the nineteenth century oil found many more uses: lubrication of machinery, manufacture of paint to protect iron, textiles, fabrics and soap all required oil, and demand increased. Rollers replaced the old stampers, and later hydraulic ram presses replaced the screw presses. Increasing size and mechanisation of the seed-crushing process led to the demise of the old water and wind powered oil mills.

2 Location of oil mills in Great Ayton

Appendix A of the publication 'History of Seed Crushing in Great Britain' by Harold W Brace, Land Books Limited, London, 1960 lists all the known locations of oil mills. The entry for Great Ayton is:

"AYTON, Great, Yorks. - An oil mill is mentioned in 1808 but no details are given. In 1823 there were two stamper mills, both driven by water power off the River Leven; Low Mill, near Ayton Grange, was run by Richardson and Bowron, the other mill by Philip Hesleton. Both were rented by Weatherill, Sanderson & Co., of Stockton, in 1840, but no other reference to this firm can be found so it would seem to have gone out of business soon after. Low Mill was advertised to be let, described as 'old established', in 1847-8, but does not seem to have attracted a new tenant; the other mill had been absorbed into the then newly-established Friends' School 'a few years' after 1841."

Note that the mill advertised to be let was not Low Mill, as thought by Harold Brace, but the Hesleton mill.

Interestingly, there are no other oil mills listed anywhere in Cleveland, the nearest to the north being at Newcastle-upon-Tyne, and to the south at York. Clearly Ayton was an important centre for oil milling. With the large amount of flax coming into Ayton, it would have been logical to start linseed oil crushing here. Also, rape was a widespread local crop, although where the variety of seed is mentioned in contemporary local references, it is always linseed.