## WHAT SIZE IS AN ACRE?

Anyone interested in local history or genealogy will at some point come across documents listing areas of land in A., R., and P., the abbreviations for acres, roods and perches, which are the units of land measure. Even with all the E.U. regulations, farms are still being sold in acres rather than hectares. Leases, valuation records and tenant's lists as well as farms advertised for sale in the newspapers all include land measurements. Before getting into any detail it is useful to know that an acre is made up of 4 roods with 40 perches in a rood. With this little bit of information two or three portions of land can be added together when the need arises. Confusingly a perch is a unit of length as well as of area and it will become clear later that the size of an acre is determined by the length of the perch.

The word acre originated from an old English word-aecer, which means an open field. In early times farmers in England defined an acre as the area which they could plough in a day with a team of oxen. Of course this amount varied throughout the country due to different types of land and teams of oxen. An acre can be any shape but it was always more practical to plough a long narrow strip of land where the team would keep going for some distance before getting a breather as they turned at the ends. Ploughmen preferred a long furrow because turning the team was a cumbersome process. This furrow-long became the furlong, a distance of 220 yards, also equal to 40 perches each of $51 / 2$ yards. I am using perches because they are more commonly known in Ulster but rods (not to be confused with roods) and poles are different names for the same unit depending on which part of Britain you are in. They varied in length in earlier times but whatever their length, 160 square perches made an acre so it was always the length of the perch that determined the size of the acre. The length of the strip has already been determined and the width was set at 4 perches or 1 chain giving an area of 220 by 22 yards, equal to 4840 square yards. This was the area limited by statute during the reign of George IV which became known as the statute or English acre.

Although the statute acre eventually became accepted as the standard measurement of Ulster farmers it had to compete for generations with two other variations both quite widely used in Ulster, the larger Irish and the Cunningham acres.

The Irish or plantation acre was, as the name suggests, used in Ireland since Plantation times but was also the measure used in Yorkshire and regions bordering the Solway Firth. Its size like the English acre was determined by the length of the perch which was 7 yards rather than $51 / 2$ giving an area 280 by 28 yards, equal to 7840 square yards known as 1 acre Irish Plantation measure equivalent to 1.62 acres statute.

Although the Cunningham acre is of Scottish origin it is not the same as the old Scottish acre which was 6150.4 square yards. It was abolished when Imperial measure was adopted in 1824 and English acres were imposed by an Act of Parliament. In area the Cunningham acre fitted in between the Irish and statute acres and is calculated from a perch measuring $61 / 4$ yards giving an area 750 feet by 75 feet, equal to 6250 square yards or approximately 1.3 acres statute.

Leases dated as early as 1687 can be found in PRONI using Cunningham measure and although it was used in most parts of Ulster it seems to have been more common towards the coastal parts of County Down right through into the $20^{\text {th }}$ century. The Irish Plantation measure also survived in some areas into the $20^{\text {th }}$ century. Some variations of this that one might come across would be Plantation measure, Irish measure, Irish acres and the Irish Plantation acres, all there to confuse us.

A chain has been mentioned already in relation to the width of the statute acre plot which was 66 feet or 4 perches. The actual surveyor's chain that was used to measure land for legal and commercial purposes was originally known as Gunter's chain after the English clergyman and mathematician Edmund Gunter (1581-1626) who designed and introduced it in 1620 .

A surveyor's chain consists of 100 links, each 7.92 inches, making a total length of 66 feet, so the original statute acre was 10 square chains. Few people will realise the relationship between the size of an acre and the length of a mile. There are 320 perches in a mile but like the size of an acre it is the length of the perch that determines the overall length. In the case of the Irish mile each perch is 7 yards so the total length is 2,240 yards equivalent to 1.27 statute miles which are calculated using a perch length of $51 / 2$ yards making the statute mile 1760 yards also equal to 80 chains.

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