

Occupier's Guidance Wayleave Rates for 2022-23

Produced by The Andersons Centre

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Summary of Guidance Wayleave Payments for Occupiers of Farmland 2022-23

| | | 2022 | |
|-----------------|---|---------|-----------|
| | | Arable | Grassland |
| Pole | | £26.10 | £2.72 |
| H-Pole | | £31.22 | £2.96 |
| Pole & Stay | | £32.62 | £3.01 |
| Isolated Stay | | £7.39 | £1.82 |
| Additional Stay | | £3.70 | £0.91 |
| T01 | less than 2.6m x 2.6m | £56.91 | £7.92 |
| T02 | from 2.6m x 2.6m to less than 3.8m x 3.8m | £59.43 | £8.45 |
| T03 | from 3.8m x 3.8m to less than 4.6m x 4.6m | £65.56 | £9.41 |
| T04 | from 4.6m x 4.6m to less than 5.3m x 5.3m | £68.79 | £10.01 |
| T05 | from 5.3m x 5.3m to less than 6.9m x 6.9m | £73.77 | £10.94 |
| T06 | from 6.9m x 6.9m to less than 7.6m x 7.6m | £80.49 | £11.96 |
| T07 | from 7.6m x 7.6m to less than 9.1m x 9.1m | £85.38 | £12.80 |
| T08 | from 9.1m x 9.1m to less than 10.7m x 10.7m | £92.26 | £13.92 |
| T09 | from 10.7m x 10.7m to less than 12.2m x 12.2m | £99.14 | £14.99 |
| T10 | from 12.2m x 12.2m to less than 13.7m x 13.7m | £105.82 | £15.97 |
| T11 | from 13.7m x 13.7m to less than 15.2m x 15.2m | £112.51 | £16.89 |
| T12 | from 15.2m x 15.2m to less than 16.8m x 16.8m | £119.44 | £17.79 |
| T13 | from 16.8m x 16.8m | £122.92 | £18.17 |
| PB1 | single unstayed | £26.10 | £2.72 |
| PB2 | double - unstayed | £51.79 | £7.20 |
| PB3 | multi stayed | £143.81 | £21.26 |

Changes to Occupiers' Guidance Wayleave rates from 2021/2 to 2022/3

Summary Notes

| | Arable | Permanent Pasture |
|----------------------------|--|---|
| Timeloss | Mostly higher. Higher machinery costs and new mostly slower timeloss readings. | Almost all higher, based on rising operations costs and mostly slower new timeloss readings |
| Irrigation | Strong rise in irrigation costs | No irrigation on permanent grass |
| Area Loss | Mixed depending on cropping yields and outputs | Lower throughout as value of hay has declined considerably. |
| Yield Loss | Slightly down for all fixtures. Varied gross margins. | Lower for all fixtures as lower hay value |
| Wasted Inputs | Rises for all fixtures as costs of inputs rise | Rises for all fixtures as costs of inputs rise |
| Weed Control | Higher for all fixtures | Higher for most fixtures. |
| Health & Safety | increase of H&S in all arable fixtures. | Slight decline as percentage of unimproved pasture increased. |

Detailed Figures

| | 2022 | | 2021 | | Difference | | Difference | |
|---|---------|-----------|---------|-----------|------------|-----------|------------|-----------|
| | Arable | Grassland | Arable | Grassland | Arable | Grassland | Arable | Grassland |
| Pole | £26.10 | £2.72 | £25.26 | £2.62 | £0.84 | £0.09 | 3.3% | 3.6% |
| H-Pole | £31.22 | £2.96 | £31.12 | £3.01 | £0.10 | -£0.05 | 0.3% | -1.6% |
| Pole & Stay | £32.62 | £3.01 | £35.08 | £3.17 | -£2.46 | -£0.16 | -7.0% | -5.0% |
| Isolated Stay | £7.39 | £1.82 | £7.25 | £1.84 | £0.14 | -£0.02 | 1.9% | -1.1% |
| Additional Stay | £3.70 | £0.91 | £3.63 | £0.92 | £0.07 | -£0.01 | 1.9% | -1.1% |
| T01 less than 2.6m x 2.6m | £56.91 | £7.92 | £55.70 | £7.83 | £1.21 | £0.09 | 2.2% | 1.1% |
| T02 from 2.6m x 2.6m to less than 3.8m x 3.8m | £59.43 | £8.45 | £58.19 | £8.36 | £1.24 | £0.09 | 2.1% | 1.1% |
| T03 from 3.8m x 3.8m to less than 4.6m x 4.6m | £65.56 | £9.41 | £64.45 | £9.46 | £1.12 | -£0.05 | 1.7% | -0.5% |
| T04 from 4.6m x 4.6m to less than 5.3m x 5.3m | £68.79 | £10.01 | £67.67 | £10.09 | £1.12 | -£0.08 | 1.7% | -0.8% |
| T05 from 5.3m x 5.3m to less than 6.9m x 6.9m | £73.77 | £10.94 | £72.61 | £11.07 | £1.17 | -£0.13 | 1.6% | -1.2% |
| T06 from 6.9m x 6.9m to less than 7.6m x 7.6m | £80.49 | £11.96 | £79.40 | £12.24 | £1.09 | -£0.28 | 1.4% | -2.3% |
| T07 from 7.6m x 7.6m to less than 9.1m x 9.1m | £85.38 | £12.80 | £84.21 | £13.13 | £1.17 | -£0.33 | 1.4% | -2.5% |
| T08 from 9.1m x 9.1m to less than 10.7m x 10.7m | £92.26 | £13.92 | £90.98 | £14.33 | £1.28 | -£0.41 | 1.4% | -2.8% |
| T09 from 10.7m x 10.7m to less than 12.2m x 12.2m | £99.14 | £14.99 | £97.71 | £15.48 | £1.42 | -£0.49 | 1.5% | -3.2% |
| T10 from 12.2m x 12.2m to less than 13.7m x 13.7m | £105.82 | £15.97 | £104.22 | £16.55 | £1.60 | -£0.58 | 1.5% | -3.5% |
| T11 from 13.7m x 13.7m to less than 15.2m x 15.2m | £112.51 | £16.89 | £110.70 | £17.55 | £1.80 | -£0.65 | 1.6% | -3.7% |
| T12 from 15.2m x 15.2m to less than 16.8m x 16.8m | £119.44 | £17.79 | £117.39 | £18.52 | £2.06 | -£0.73 | 1.8% | -3.9% |
| T13 from 16.8m x 16.8m | £122.92 | £18.17 | £121.09 | £19.00 | £1.82 | -£0.83 | 1.5% | -4.4% |
| PB1 single unstayed | £26.10 | £2.72 | £25.26 | £2.62 | £0.84 | £0.09 | 3.3% | 3.6% |
| PB2 double - unstayed | £51.79 | £7.20 | £50.69 | £7.13 | £1.10 | £0.08 | 2.2% | 1.1% |
| PB3 - multi stayed | £143.81 | £21.26 | £141.68 | £22.23 | £2.13 | -£0.97 | 1.5% | -4.4% |

Summary of Changes to the Guidance Wayleave Payments for Occupiers of Farmland for 2022-23

This section provides a summary and explanation of the main changes to the 2022-3 occupiers' guidance wayleave payment rates which have been discussed and agreed between the ENA and NFU, and subsequently recommended by the ENA to its members. A more detailed, general guide to guidance wayleave payment rates is provided in the next section.

The guidance wayleave rates for 2022 are almost entirely higher for arable payment rates and mixed for grassland rates compared with 2021. This is for a series of reasons. This text explains the changes to the computations and the figures that have led to this.

Removal of 5-year averaging and upwards only adjustments

Reminder: As a result of changes agreed between the NFU and ENA in 2019/20, the 5-year averaging of rates and upward-only adjustment agreement was removed from the calculation in 2020. This means that rates can now go up more sharply than before, but can also fall.

Reference Year

The reference year for calculating the guidance wayleave rates for 2022 is 2019/20. This is the most recent year for which all of the necessary data is available to complete the calculation.

Guidance rates for arable wayleaves overall are higher in 2022 other than for the Pole and Stay. Changes range, depending on structure from a rise of 0.3% to 3.3% but with the pole and stay declining by 7%. This is because of a variety of reasons. Grassland guidance wayleave rates mostly decline this year with a few exceptions. The pole and small pylons increase by 1.1% to 3.6%, but all other fixtures decrease by a range of 0.5% to 4.4%, largely as the value of grassland declines in the benchmark year.

Timeloss

Rates for Timeloss are higher across all fixtures for both arable and grassland for 2022 apart from the pole and stay and H-pole in arable and the pole and stay in pasture.

Timeloss calculations are based on the additional time taken to navigate a structure compared with uninterrupted land, the marginal cost of using the machine and labour operating it, and the number of passes of each machine requires for each crop type.

The capital cost of machinery rose in 2019/20 albeit by less than in previous years. The cost of labour recorded by the Central Association of Agricultural Valuers (CAAV) from the Annual Survey of Hours and Earnings (ASHE) rose in 2019/20. This had a small impact on timeloss but greater effect on other heads of payment.

Timeloss has increased overall as the time measurements to navigate the in-field obstacle are being updated by an ongoing new survey. New timeloss readings are being recorded to replace existing figures and most new figures are higher than the existing ones and so timeloss is likely to continue to rise for a year or so as a result. Modern machinery is generally larger and therefore more cumbersome to manoeuvre around fixtures. However, this is not always the case, and some machinery passes around obstacles have increased in time, others declined. Some machinery has not changed in size but is operated by high-tech, higher powered tractors enabling faster manoeuvring speeds. Some changes in timeloss measurements are small, others considerable. This explains why the reading for a

pole and stay has changed so much in 1 year. Incidentally, it increased by about the same amount in the previous year.

Irrigation

Irrigation constitutes only a small percentage of the guidance wayleave because only a small area of farmland is irrigated. However, the rate has increased by a substantial 14.8%. There is no irrigation in the permanent pasture guidance wayleave calculation.

Area Loss

This head of payment is mixed depending on the size and shape of each structure. The reason for this variation is largely as field vegetable crops incur larger area losses and less yield losses being largely in beds and rows. The fixtures with greater area losses have a different weighting of vegetables to other fixtures. The methodology for using real data has been improved in this section, specifically for field vegetables, making the figures recorded more accurate than ever before. Area loss changes in the arable guidance wayleaves are mixed and down for pasture rates.

Yield Loss

Yield Loss is a relatively small head of payment. The change in arable yield loss is a small reduction for 2022 (3 to 4.6% of the head of payment). Grazed grass is valued based on the value of hay and as hay prices came down for the benchmark year (2019-20), the overall value of the grass and conservation crops have also declined.

Wasted Inputs

Wasted inputs increased strongly in both arable and grassland guidance wayleaves for all obstacles. In the arable wayleave the increase has been between 4.2% and 8.2%, and in the grassland wayleaves, 9.2% to 11.4%. Most seed, fertiliser and spray costs rose in 2019/20 from the previous year.

Weed Control

This head of payment is higher this year for all fixtures and guidance wayleave types apart from a few grassland structures, where a very small decline is observed. This is almost entirely because of the rise in value of the labour. Other costs have increased with inflation. The greatest component of this cost is the time spent travelling to and from the fixtures and applying the weed control around it.

Health and Safety (H&S)

Health and Safety costs are largely overhead charges such as mapping the fixtures, writing the Health and Safety protocols and procedures, training staff and visitors and explaining to people how to avoid injury. This is largely the same work regardless of how many fixtures there are. The figure that affects H&S more than any other is the typical farm size and therefore usual number of fixtures on an average sized farm. As this changes, the total overheads are divided between varying numbers of fixtures. The H&S head of payment in the arable guidance wayleaves increases this year, whilst the grassland rates decline.

Detailed Guide to Guidance Wayleave Payments for Occupiers of Farmland

Introduction

The wayleave payment made for an electricity fixture in an agricultural field is compensation on two bases; the owner's component and the occupier's payment. The rates are discussed annually between the ENA and the NFU, CLA and FUW¹. The ENA recommends settlements to its member companies and it is then a matter for each company's discretion whether to adopt the recommendation. The occupier's component is made at one of two different rates depending on land use; arable rotation or grassland. New guidance rates for occupiers have been calculated between the ENA and NFU for arable and grassland. They are based on a series of heads of payment of costs incurred because of the obstacle in the field. They are:

1. **Time loss:** This is calculated by measuring the additional time required to navigate an agricultural implement over a stretch of field with an obstructing fixture, compared with the time required to navigate the same size stretch of field without an obstacle
2. **Irrigation:** this takes account of the additional incumbrance of having to redirect irrigators to avoid fixtures within a field
3. **Area loss:** Area loss is the component that compensates for the land area immediately surrounding a fixture (or beneath it in the case of a pylon) that is not cropped because it is too close to, or within, the fixture
4. **Yield loss:** This head of payment assumes a given yield loss within a certain vicinity of each fixture, which varies depending on the fixture type, size and crop type.
5. **Wasted input:** from both unavoidable overlaps of seed, sprays and fertiliser and on land not cropped
6. **Weed control:** the cost of weeding the area around and within the electrical fixture.
7. **Health and Safety:** This compensates for additional health and safety work and cost because of the presence of electricity fixtures on farm. The calculations are based on assessing best practice.

The calculations of these costs are detailed and complex, covering the entire arable crop rotation in England and Wales. They include all land uses with crops categorised into 26 individual arable crops and 5 categories of permanent grassland. In the calculations for each head of payment, the arable land area is allocated into fifteen groupings of crop types. This includes winter cereals (of which there are eight crops included), spring cereals (of which there are six crops included). The other rotation categories are vining peas, potatoes, sugar beet, fodder beet, brassicas and beans, field vegetables, forage crops, fallow land, grass and cover crops. The permanent and temporary grass is divided into sub-groups of grazed grass, harvested grass and grass in establishment. Permanent grass has another 'unimproved' category. The categorisations were created either because of the variation in value of the crops or the range of cultivation types that could be grouped together.

The calculation is updated annually, based on single-year figures. The same year is used for each of the datasets to ensure the figures are aligned and are taken from the farming activities and prices from 2 years' earlier. For example, the figures for 2022 are compiled from the 2019/2020 agricultural year because that is the most recent year with a complete set of data available from all sources.

Fixtures

The calculations vary according to the size and shape of each fixture. The largest difference is between the wood pole fixtures and pylons. The direction of approach, field layout, operation in question and

indeed crop, will affect the impact that the size of the structure whether a pole or pylon has on the time taken to navigate the structure and the area affected.

Resources Used

The analysis makes use of data published by the following sources;

- The Central Association of Agricultural Valuers (CAAV) annual detailed machinery costings,
- Farm Business Survey (FBS) annual financial costings
- Agrobusiness Consultant's Agricultural Budgeting and Costings Book (ABC)
- English and Welsh June Census figures for crop area calculations
- Pesticides Usage Survey (PUS for UK) for application frequencies and some winter and spring crop breakdowns
- British Survey of Fertiliser Practice (BSFP)
- Several other sources of information were used as evidence within the model. This includes various academic publications, Natural England costings, the Agricultural Engineers Association, data from agricultural press publications, data from agricultural markets, and other survey results.

The costs are explained in more detail here:

Summary of Heads of Payment

Time loss

The time loss component of the guidance wayleave is calculated by measuring the additional time required to navigate an agricultural implement over a stretch of field with an obstructing fixture, compared with the time required to navigate the same size stretch of field without an obstacle. It accounts for the value of that time lost (£/hour). This takes account of the marginal machinery costs as well as labour charge, based on the calculated cost of operating the respective implement combined with the delay. This includes a relevant proportion of the capital cost, repairs and spares, depreciation and fuel. The time loss calculations combine all the machinery operations with assessments of machine sizes and operation frequencies. Costs used are laid out in the CAAV annual machinery costings manual with assessments of the frequency of each machine type and size. A more detailed explanation is to be found in Appendix A

Irrigation

This head of payment takes account of the costs incurred by irrigation in a field. It is calculated in a similar manner to time loss. It uses published data on how much cropping is irrigated in a typical year and how many times.

Area Loss

Area loss is the component that compensates for the land area immediately surrounding a fixture (or beneath it in the case of a pylon) that is not cropped because it is too close to, or within, the fixture. An assessment of the lost crop from additional wheelings and tramlines put in to navigate the structure is also included. This varies depending which crop is being grown and which fixture is being navigated. This head of payment calculates the pre-rent and finance cost of the uncropped land around the fixture plus the output lost by the additional tramline area. A more detailed explanation is in Appendix B

Yield Loss

This head of payment assumes a given yield loss within a certain vicinity of each fixture, which varies depending on the fixture type, size and crop type. The yield loss payment calculates a fixed yield loss

percentage from the average yield of each crop that given year, multiplies it by a set area around each fixture, thus working out an overall decline in total output, which is compensated for at the value of the crop grown. Root crop yields are not downgraded because of a high area loss calculation, but instead have a quality downgrade adjustment made. A more detailed explanation is to be found in Appendix C

Wasted Inputs

There are occasions when inputs may not be placed in precisely the correct place when an obstacle is in a field, obscuring the passage of the machinery. It includes the 3 inputs; seed, sprays and fertiliser. A formula is in place to assess the land area which is double-drilled. There is an overlap of spray applications in a similar manner. Fertiliser might be either placed on the same ground twice by the manoeuvring process, land on the uncropped area or might even bounce off the obstacle, thereby landing in the wrong place all of which are compensated for. An allowance is made for the percentage of liquid fertilisers, which are accounted for in the same way as sprays. A more detailed explanation is to be found in Appendix D

Weed Control

There are various ways in which the weeds that grow around, or within an electricity fixture are controlled. Some farming systems (for example many that involve livestock) have minimal specific weed control methods, others involve spot spraying with knapsack sprayers, with quadbikes, other farm vehicles or simply walking from one to another fixture. Strimmers are also occasionally used. The frequency of each weed control form and how often weeds around fixtures tend to be managed per season are known and accounted for in a similar manner to the time loss calculation. The likelihood that the weed controlled around fixtures may on occasion be combined with the weed control of non-fixture features is also accounted for. A more detailed explanation is to be found in Appendix E

Health & Safety

This compensates for additional workload and cost because of the presence of electricity fixtures on farm. This includes the contribution to H&S policies and risk assessments, annual reviews and map preparation and updates. It includes additional staff training and instructions to contractors. For this head of payment, an average size farm with a typical number of electrical fixtures is used. A more detailed explanation is to be found in Appendix F

Additional Explanatory Notes for Occupiers

- Electricity wayleave payments represent compensation for annual losses for interference on agricultural land caused by the presence of electricity lines in England and Wales.
- Arable land includes grassland that is part of the arable rotation, thereby up to and including 5 years old and the rotation then broken by another crop.
- Payment for an 'Additional Stay' will be applied when 2 stays on a single fixture are within 45° of each other.
- The higher 'Additional Stay' payment for a stay will apply to a single stay where the annexed pole is outside the cultivated area or where a stay is installed at more than 45° to an adjacent stay.
- Rates for Painter Brother (PB) single unstayed fixture are the same as for poles, a PB-double unstayed structure, assumes a double-limb structure with a gap between the two limbs of up to and including 6 metres and a PB multi-stayed structure assumes up to and including 12 stays based on a ground area of 23 metres square.
- Measurements of towers are taken from the exterior angle of the concrete bases at ground level. If part of a tower extends into a field, then a pro-rata payment will be applied.
- For each tower size category, the following land area has been used to calculate compensation:

| | |
|---|--|
| ○ T1 up to 2.6m x 2.6m | ○ T8 over 9.1m ² to 10.7m ² |
| ○ T2 over 2.6m ² to 3.8m ² | ○ T9 over 10.7m ² to 12.2m ² |
| ○ T3 over 3.8m ² to 4.6m ² | ○ T10 over 12.2m ² to 13.7m ² |
| ○ T4 over 4.6m ² to 5.3m ² | ○ T11 over 13.7m ² to 15.2m ² |
| ○ T5 over 5.3m ² to 6.9m ² | ○ T12 over 15.2m ² to 16.8m ² |
| ○ T6 over 6.9m ² to 7.6m ² | ○ T13 over 16.8m ² (to 18.3m ²) |
| ○ T7 over 7.6m ² to 9.1m ² | |
- Where supports of two separate lines are within 30 metres of each other in the same enclosure, the occupier's compensation payment for those supports will be increased by 50%. This only applies to supports for which annual payments are made.
- Enhanced occupier's payments for commercial top fruit orchards, hop gardens and cherry and plum orchards, where supports interfere with the movement of machinery are paid at 150% of arable payment.
- Farming systems which include crops which involve exceptionally intense and multiple cultivations or other special factors may be considered for enhancement of advisory rates on merit. Any such claims should be made to the relevant electricity company.

Rates and Example Table

The guidance occupiers' wayleave payment calculations for fixtures on arable and pastureland are based on a series of loss headings which are summarised in Table A. Table A represents the apex of an extensive pyramid of further, more detailed calculations. The values under each loss heading in Table A are derived from a number of separate summary tables in which losses across a range of crop types are represented. One of the many summary tables, relating to wooden poles, is provided below in Table B for illustrative purposes. Each value in Table B is derived from a catalogue of separate sub-tables, many of which have sub tables beneath them.

It is important to note that the end figure represents losses due to the wooden pole across all arable or grassland farming operations, intensive and extensive alike for a typical farm encompassing all farming systems. This approach has been applied to the calculation of guidance wayleave payments for many decades. It is considered to be, and has been accepted as, a fair and reasonable method of compensating for losses across a range of crop types.

Each cost item in the table has been calculated by reference to weighted averages reflecting a wide range of farming systems and so it must be regarded as unrepresentative of a specific farming business with its own, bespoke costs profile. The concept of average-based payments ensures equality and fairness for all wayleave grantors.

Table A: Summary table of Rates for key Electricity Fixtures with Constituent Costs

| England & Wales 2022 | Arable | | | | | | | | Grass | | | | | | | |
|------------------------------------|----------------|----------------------|----------------|-----------------|------------------|----------------|---------------|-----------------|---------------|---------------------|---------------|----------------|-----------------|---------------|--------------|----------------|
| | Arable Time | Arable Irrigation | Arable Area | Arable Yield | Arable Wasted | Arable Weed | Arable H&S | Arable Total | Grass Time | Grass Irrigation | Grass Area | Grass Yield | Grass Wasted | Grass Weed | Grass H&S | Grass Total |
| Pole | £14.35 | £0.17 | £3.15 | £0.41 | £3.10 | £1.83 | £3.10 | £26.10 | £0.74 | £0.00 | £0.01 | £0.03 | £0.21 | £0.13 | £1.59 | £2.72 |
| H-Pole | £17.23 | £0.17 | £4.18 | £0.49 | £4.20 | £1.86 | £3.10 | £31.22 | £0.82 | £0.00 | £0.06 | £0.05 | £0.30 | £0.15 | £1.59 | £2.96 |
| Pole & Stay | £17.53 | £0.18 | £4.54 | £0.51 | £4.85 | £1.91 | £3.10 | £32.62 | £0.81 | £0.00 | £0.05 | £0.05 | £0.33 | £0.18 | £1.59 | £3.01 |
| Isolated Stay | £2.49 | £0.01 | £0.54 | £0.03 | £0.66 | £0.58 | £3.10 | £7.39 | £0.13 | £0.00 | £0.02 | £0.01 | £0.04 | £0.04 | £1.59 | £1.82 |
| Additional Stay | £1.24 | £0.00 | £0.27 | £0.02 | £0.33 | £0.29 | £1.55 | £3.70 | £0.06 | £0.00 | £0.01 | £0.00 | £0.02 | £0.02 | £0.79 | £0.91 |
| less than 2.6m x 2.6m | £32.24 | £0.19 | £10.33 | £0.27 | £8.84 | £1.94 | £3.10 | £56.91 | £5.45 | £0.00 | £0.07 | £0.02 | £0.59 | £0.20 | £1.59 | £7.92 |
| from 2.6m x 2.6m to less than 3.8r | £33.56 | £0.20 | £11.01 | £0.30 | £9.24 | £2.02 | £3.10 | £59.43 | £5.87 | £0.00 | £0.09 | £0.02 | £0.62 | £0.25 | £1.59 | £8.45 |
| from 3.8m x 3.8m to less than 4.6r | £35.64 | £0.20 | £12.24 | £2.41 | £9.92 | £2.06 | £3.10 | £65.56 | £6.55 | £0.00 | £0.13 | £0.19 | £0.68 | £0.27 | £1.59 | £9.41 |
| from 4.6m x 4.6m to less than 5.3r | £37.11 | £0.21 | £13.23 | £2.60 | £10.45 | £2.09 | £3.10 | £68.79 | £7.04 | £0.00 | £0.15 | £0.21 | £0.73 | £0.29 | £1.59 | £10.01 |
| from 5.3m x 5.3m to less than 6.9r | £39.21 | £0.22 | £14.87 | £2.89 | £11.30 | £2.19 | £3.10 | £73.77 | £7.75 | £0.00 | £0.22 | £0.23 | £0.80 | £0.35 | £1.59 | £10.94 |
| from 6.9m x 6.9m to less than 7.6r | £41.12 | £0.23 | £16.66 | £4.97 | £12.18 | £2.23 | £3.10 | £80.49 | £8.42 | £0.00 | £0.29 | £0.40 | £0.88 | £0.37 | £1.59 | £11.96 |
| from 7.6m x 7.6m to less than 9.1r | £42.76 | £0.24 | £18.51 | £5.35 | £13.07 | £2.34 | £3.10 | £85.38 | £9.02 | £0.00 | £0.37 | £0.43 | £0.96 | £0.44 | £1.59 | £12.80 |
| from 9.1m x 9.1m to less than 10.7 | £44.79 | £0.26 | £21.36 | £5.90 | £14.38 | £2.48 | £3.10 | £92.26 | £9.79 | £0.00 | £0.48 | £0.47 | £1.08 | £0.52 | £1.59 | £13.92 |
| from 10.7m x 10.7m to less than 1 | £46.47 | £0.27 | £24.47 | £6.45 | £15.76 | £2.62 | £3.10 | £99.14 | £10.48 | £0.00 | £0.60 | £0.52 | £1.20 | £0.60 | £1.59 | £14.99 |
| from 12.2m x 12.2m to less than 1 | £47.76 | £0.29 | £27.74 | £6.98 | £17.17 | £2.78 | £3.10 | £105.82 | £11.07 | £0.00 | £0.74 | £0.56 | £1.32 | £0.70 | £1.59 | £15.97 |
| from 13.7m x 13.7m to less than 1 | £48.74 | £0.30 | £31.27 | £7.51 | £18.64 | £2.95 | £3.10 | £112.51 | £11.59 | £0.00 | £0.87 | £0.60 | £1.45 | £0.80 | £1.59 | £16.89 |
| from 15.2m x 15.2m to less than 1 | £49.41 | £0.31 | £35.18 | £8.06 | £20.23 | £3.15 | £3.10 | £119.44 | £12.04 | £0.00 | £1.02 | £0.64 | £1.59 | £0.92 | £1.59 | £17.79 |
| from 16.8m x 16.8m | £49.61 | £0.32 | £37.30 | £8.35 | £21.08 | £3.15 | £3.10 | £122.92 | £12.24 | £0.00 | £1.09 | £0.67 | £1.66 | £0.92 | £1.59 | £18.17 |

Table B: Summary Guidance Occupiers' Wayleave for Single Pole in Arable Land

| | Winter sown c. crops | Spring sown c. crops | Vining peas | Potatoes | Sugar beet | Fodder beet | Brassicas, beans and fresh peas | Field vegetables | (Forage) maize | Fodder /Forage & Catch | Established ley Silage | Established ley Grazed | Ley in Establishment | Fallow | Cover & Catch crops | Arable Total |
|--------------------|----------------------|----------------------|-------------|----------|------------|-------------|---------------------------------|------------------|----------------|------------------------|------------------------|------------------------|----------------------|---------|---------------------|--------------|
| Total Area | 2,667,071 | 760,214 | 27,368 | 111,516 | 108,000 | 36,357 | 27,963 | 46,410 | 225,502 | 73,705 | 363,734 | 333,608 | 159,952 | 193,206 | 98,972 | 5,134,606 |
| Area Percent | 51.9% | 14.8% | 0.5% | 2.2% | 2.1% | 0.7% | 0.5% | 0.9% | 4.4% | 1.4% | 7.1% | 6.5% | 3.1% | 3.8% | 1.9% | 100.0% |
| Single Pole | | | | | | | | | | | | | | | | |
| Timeloss | £17.19 | £14.57 | £15.48 | £36.90 | £20.58 | £15.32 | £17.53 | £29.70 | £15.55 | £7.77 | £2.29 | £2.29 | £7.72 | £1.24 | £4.56 | £14.35 |
| Irrigation | £0.03 | £0.03 | £0.00 | £3.42 | £0.72 | £0.00 | £3.59 | £3.59 | £0.00 | £0.00 | £0.03 | £0.03 | £0.03 | £0.00 | £0.00 | £0.17 |
| Area Loss | £3.54 | £2.44 | £3.02 | £14.12 | £2.21 | £6.06 | £29.34 | £29.34 | £1.45 | £1.10 | £0.17 | £0.27 | -£0.01 | £0.00 | £0.00 | £3.15 |
| Yield Loss | £0.54 | £0.38 | £0.50 | £0.65 | £0.00 | £0.00 | £0.88 | £0.88 | £0.42 | £0.18 | £0.23 | £0.00 | £0.12 | £0.00 | £0.00 | £0.41 |
| Wasted Inputs | £3.34 | £2.24 | £2.69 | £12.14 | £4.90 | £3.84 | £7.97 | £7.97 | £3.18 | £1.52 | £2.65 | £1.38 | £1.90 | £0.06 | £0.52 | £3.10 |
| Weed Control | £1.83 | £1.83 | £1.83 | £1.83 | £1.83 | £1.83 | £1.83 | £1.83 | £1.83 | £1.83 | £1.83 | £1.83 | £1.83 | £1.83 | £0.00 | £1.83 |
| Health & Safety | £3.10 | £3.10 | £3.10 | £3.10 | £3.10 | £3.10 | £3.10 | £3.10 | £3.10 | £3.10 | £3.10 | £3.10 | £3.10 | £3.10 | £0.00 | £3.10 |
| | | | | | | | | | | | | | | | | £26.10 |

Appendices ~ Detailed Notes

Appendix A ~ Time Loss

Time loss accounts for the costs incurred from the additional time and manoeuvres taken when navigating a structure. The time loss head of payment accounts for labour and machinery. It is only the costs actually incurred that can be compensated for under the regulations of statutory compensation not the opportunity cost of that time.

To calculate the costs of time loss, four key pieces of information are required.

- What machinery is used to farm each crop
- How many times it is used for each crop
- What the cost of operating each piece of machinery is, including labour and tractor costs
- How long it takes each machine to navigate each type of electrical fixture.

The time taken to circumnavigate each type of electrical fixture with each type of farm machinery at each relevant size is required. This is multiplied by the cost per hour of each machine and the frequency the operation tends to be used on each crop.

Assessments have been made to measure the amount each piece of machinery is used each year to undertake field operations for each crop type. This is weighted to take account of different sizes of machine for each operation.

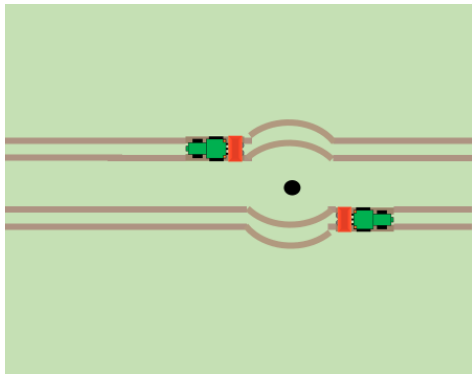
Machinery costings are accounted for on a partial basis and include the additional costs incurred from the additional time and manoeuvres taken when navigating a relevant structure. This is because the machinery would be required on the farm regardless of the presence of in-field electrical fixtures. Thus, depreciation included in the time loss allowance accounts for the devaluation of a machine from its use, rather than simply its age. Fuel is included as are repairs and spares. Partial costings do not take account of finance or insurance costs.

The CAAV maintains a schedule of agricultural machinery costings including a range of typical sizes operated in British agriculture. Detailed costings for the machines on this list are updated annually. This is used for both machinery and labour costings.

Appendix B ~ Area Loss

The losses associated with this head of payment are straightforward. The compensation calculation has regard to the footprint of the structure and accounts for the land area that is not farmed because of the structure being there and the additional wheelings and tramlines created.

For a pole as a single point in a field, (1-dimensional structure, leaving a single point in the field to avoid) the impact on arable farming is the same, regardless from which direction it is approached. For many farming processes, avoiding this structure would create an 'eye-shape' of uncropped land as follows:

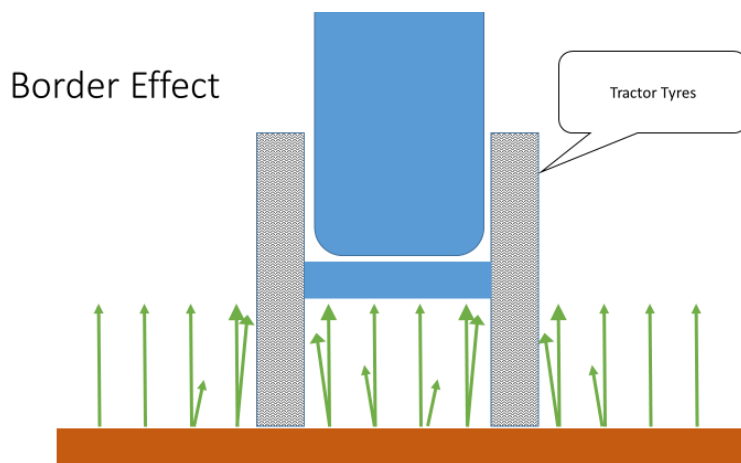


There is a variance on the shape and area of the unfarmed area, depending on the structure's alignment to the path of the machine being used, but an area is set that assumes a standard land-wastage.

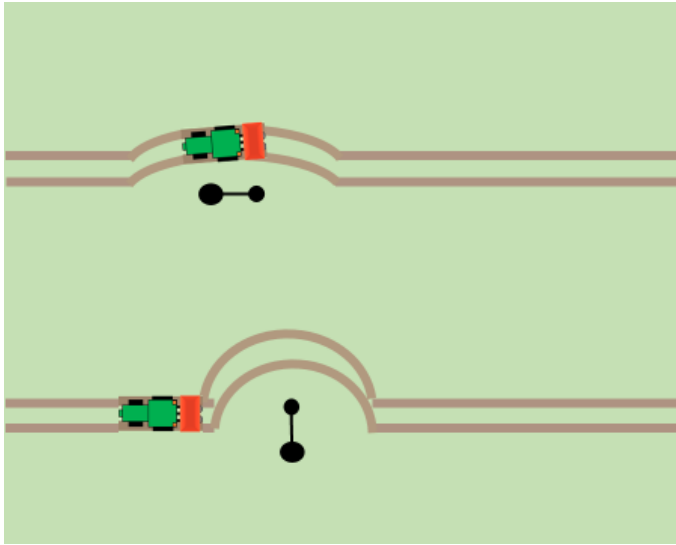
The unfarmed area varies between crops, with a considerably larger uncropped area for bed-plants such as potatoes. This is because the beds cannot be re-routed to cross other beds because of the presence of an obstacle; the planting simply stops and then restarts when the machinery is on the other side of the fixture. The un-cropped land left is often dictated by the amount of space needed by the harvesting equipment to be able to access the beds where they lead up to a structure.

The area loss calculation also includes for additional wheelings and tramlines created by the necessity to avoid the structure. This is based on calculating the additional length of tramline required to navigate the pole, less the tramlines saved (if any), multiplied by a standard width of tyre.

Yields near a tramline are higher than average as each plant has access to more resources (light, fertiliser etc.) and this is known as border effect and is accounted for.



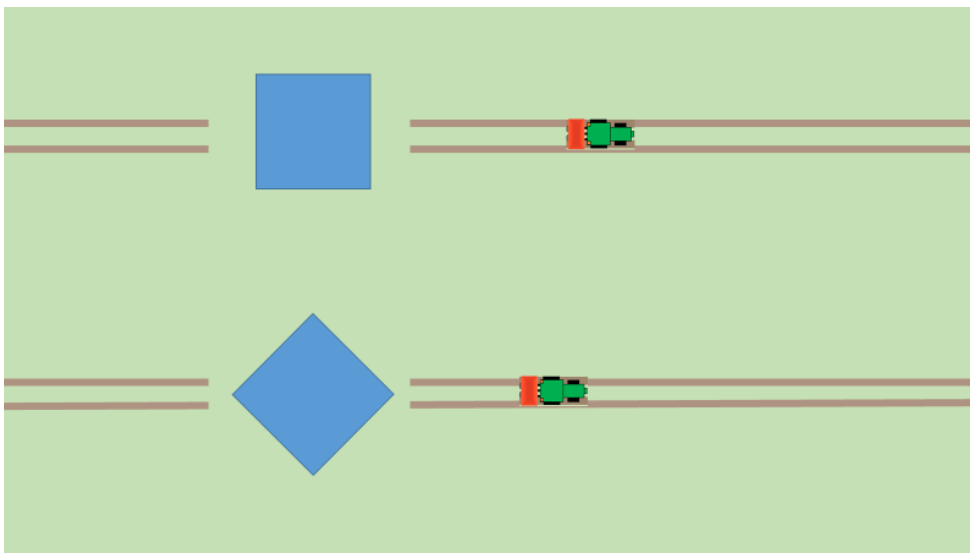
H-poles, or poles and stays are 2-dimensional (leaving a line in the field to avoid). This means that their impact will vary considerably depending from which angle they are approached in the field as the image demonstrates. The area loss calculation includes formulae which take account of these factors.



A) parallel to the tramlines, a narrow obstacle

B) approached from 90 degrees, their impact will be greater

Pylons are 3-dimensional (so create a shape in the field that needs to be avoided) and have a reduced variation of impact in relation to being approached from different angles, but the approach from 45 degrees, means they present as a diamond creates a larger obstacle than a square of the same size and so this has also been accounted for in the calculation.



For each fixture, a minimum of 1 metre stand-off around the edge of the structure is added to its area, and with smaller structures such as a poles or poles and stays, the area is assessed as the average impact on the cropping.

Appendix C ~ Yield Loss

The yield of some crops can be lower near to a pole or other fixture than in the rest of the field and this is calculated (varying percentage yield loss and distance from structure depending on electricity structure). The value of each crop is taken from Farm Business Survey data where possible or the Agricultural Budgeting and Costings book. The average yield of the FBS area covered is multiplied by the average crop price to give a total output. To this, the value of any straw is also added, to give the value of the total crop output. Some crops are not covered in detail in the FBS so in these few cases, the ABC book figures are used.

For potatoes, field vegetables and brassicas and beans, yield loss is not an issue, because the uncropped area is comparatively large. However, there is an adjustment to take account of the crop damage incurred by wheelings.

For grass and forage, a theoretical loss is calculated on harvested grass, and an estimate of the average market value is applied using published prices. There is no yield loss on grazed grass or fallow land.

Appendix D ~ Wasted Inputs

This head of payment is a large and multifaceted calculation. It involves assessing the seed, sprays and fertilisers placed either in the wrong place or unnecessarily as a result of the obstacle.

Wasted Seed

When planting a combinable crop or grass field, it is accepted that when the seed drill passes the obstacle, some seed is inadvertently placed in parts of the field that have already been planted thereby becoming double drilled. The area assumed to have been double drilled varies according to fixture type, with an individual pole starting at 57m² and increasing for other, larger and more complex structures. The area of double drilled land multiplied by the cost of seed per metre square makes the cost of the wasted seed. For potatoes and field vegetables there is no wasted seed. It is assumed the planter is turned off whilst the fixture is navigated and turned back on again once it is returned to the correct position in the soil.

Wasted Sprays

The cost of wasted sprays is calculated in the same manner as for seed. The area around a pole assumed double sprayed is calculated as 2½ times the width of the boom for a pole and more for larger structures. This is multiplied by the cost of the total spray bill in the FBS gross margin, to give the cost of wasted sprays. As the size of the fixture increases the area wasted increases.

Wasted Fertilisers

Fertiliser can be wasted through three causes;

- fertiliser that hits the fixture when it is jettisoned from the spreader, rebounds and lands in the wrong place,
- fertiliser that is thrown into the uncropped area that the drill did not reach
- fertiliser that overlaps onto land already fertilised by the manoeuvring of the machinery.

The first component is calculated as the likely proportion of fertiliser that will hit the fixture, depending how large the fixture is, and how far away it is from the spreader. Secondly, the fertiliser that is likely to fall onto the uncropped area is calculated by the cost of fertiliser per metre square multiplied with the uncropped area.

The third component is calculated in two ways according to fixture whether it is a pole, smaller structure or larger pylon. As a tractor spreading fertiliser manoeuvres around a fixture, it will have to take a route it would otherwise not have elected to take. This means that the fertiliser is spread onto parts that have already received sufficient. This is calculated as the time to navigate the fixture, multiplied with the forward speed of the machine, the width it spreads and therefore providing the amount spread per minute. This figure is then multiplied by the cost per square metre of fertiliser on the field for each crop.

There are several occasions when a fertiliser spreader does not hit the fixture at all and simply passes straight past. The likelihood of this is also statistically calculated and included in the costings.

For the larger structures, the process is slower largely by virtue of the headland. Calculating wasted fertiliser when navigating round a pylon involves different assumptions.

The uncropped area is simply the area 1 metre beyond the edge of the fixture. There is therefore no ricochet to calculate from granules hitting the fixture. Being a headland-based circumnavigation, it can be more precise. The time to navigate a structure is considered in two ways. Firstly, on the basis that it takes more than a short time to navigate a fixture, it is assumed that the spreader would be disengaged. This creates a maximum wasted fertiliser associated with extended time loss. Secondly, an allowance is built into the calculations to allow a short period of tractor deceleration as the fixture is

approached. This takes into account the fact that fertiliser spreading is a relatively fast process, and a heavy tractor and spreader requires a few metres to slow to a navigable speed before disengaging the spreader.

An allowance is made to account for the small but growing proportion of liquid fertiliser. and is costed in the same way as for wasted sprays.

Appendix E ~ Weed Control

Compensation is paid for the time and costs incurred in managing the weeds that grow around poles and under pylons. The main methods to control weeds are; using a knapsack combined with an ATV vehicle, a knapsack solely on foot, a knapsack combined with a farm vehicle such as a Land Rover or a strimmer combined with a farm vehicle.

To calculate the costs of each alternative, the costs of the farm worker are taken from the CAAV agricultural costings manual, along with the marginal costs of the ATV or farm vehicle. A costing for the capital and ongoing costs of the knapsack are also included. The calculation includes the following:

- Fill and calibrate knapsack
- fuel strimmer
- travel to first fixture on farm
- spray or strim around the fixture
- travel to next fixture
- repeat previous 2 steps for set number of fixtures
- return to farm
- clean and wash out knapsack
- clean strimmer
- return strimmer / knapsack to shed

The costs of some of these processes incurred are the same regardless of weed control process, and others vary accordingly. For example, it takes the same time (and therefore cost) to prepare the knapsack if you are walking to a fixture or taking the farm vehicle, but the strimmer option allows more time at the fixture than the spraying options.

Smaller features such as poles, attract proportionately higher payments per square metre of weed control than the larger fixtures such as pylons. These adjustments are all accounted for in the costings. The costs of each method are calculated, then multiplied by the proportion of structures that are managed in each way to generate a weighted average cost combining each method appropriately.

From the weed control survey, it is known how many times farmers apply weed control processes each year; some are multiple, some only once per season, and others less than once per year. Others do not apply weed control at all, often for good agronomic reason.

When spraying weeds other costs are incurred and include:

- a disposable overall and gloves
- a sprayer qualification is required, the 'PA6 Certification' for hand-held applicators to which a contribution is calculated based on an estimate of the cost of the certificate, divided by the number of times the individual is likely to use a hand-held sprayer.

An adjustment for treating multiple electricity structures on the same weeding trip as well as some non-electrical structures is also accounted for.

The total cost of the process is divided by the total number of fixtures in arable land to represent the typical 'average' farm.

Appendix F ~ Health & Safety

Effective health and safety management is an obligation for all farming businesses. Electricity companies provide safety guidance to landowners and occupiers. They also support the operation of safe systems of work in the vicinity of their apparatus through the incorporation in their guidance wayleave payment rates of an allowance to reflect the costs which farming businesses might incur in the discharge of those responsibilities. The allowance is calculated under three headings, Safety Management, Safety Implementation and Staff & People.

Under the Safety Management heading, an allowance is made in respect of costs associated with the business' health and safety policy and plan, recognising that these documents are relevant for a fixed period and then may be re-written. It is assumed that the policy and plan may be reviewed annually, sometimes with an expert advisor and that the plan will include a series of risk assessments, some of which will be relevant to electrical fixtures or overhead power lines. An allowance is made for these. The allowance assumes that the risk assessments may be reviewed annually and rewritten periodically, sometimes with the support of a safety advisor.

Under Safety Implementation, this recognises the cost of maintaining maps of the farm. The farmer needs a record of where the fixtures are, their type and their location. An allowance is made for the updating of maps as the number of fixtures changes. Also, it is assumed that maps are regularly reviewed to ensure they are correct and may also be provided to people who enter a farm or field so they are aware of the hazards.

Health and safety is all about keeping people safe. People must be warned about hazards and training provided to staff on safe systems of work. Therefore, an allowance is made for health and safety training for new members of staff in respect of electricity apparatus. This includes new staff, permanent and casual. An allowance is also made for an annual health and safety training meeting for staff. Briefings to contractors and delivery drivers about taking care around electricity apparatus is recognised, as is the provision of materials such as maps, instructions on how to avoid fixtures and specifically, not tipping near overhead power lines.

ⁱ NFU = National Farmers' Union
ENA = Energy Networks Association
CLA = Countryside Landowners' Association
FUW = Farmers' Union of Wales
CAAV = Central Association of Agricultural Valuers