

# **CROPS COSTS AND RETURNS 2021**

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AGRICULTURE AND FOOD DEVELOPMENT AUTHORITY

## CROP MARGINS

The Teagasc Crops Costs & Returns are intended as an indicative guide to crop margins; however land suitability, rotation, risk avoidance and husbandry skills must also be considered. As well as completing crop margins, all growers are strongly advised to complete a full financial appraisal of their business using the Teagasc eProfit Monitor and Teagasc Machinery Costs Calculator.

There is little difference in margins between the feed cereals. Non-cereal break crops offer benefits in terms of rotation, workload and risk-spreading but the sale of inter-farm produce needs careful planning to ensure profitable crops. In the case of malting barley, food-grade oats and milling wheat, the availability of contracts and fulfillment of specific contract requirements such as specified varieties, quality parameters and input purchases need to be appraised in conjunction with the guideline margins here.

Under the Basic Payment Scheme, payments are decoupled from the crop being grown. Crop changes as a result of Crop Diversification (2 or 3-Crop Rule) need to be considered over at least a 5-year time frame, to avoid future rotational issues such as pest, weed or disease build-up. The land, on which you claim entitlements, must be maintained in "good agricultural and environmental condition" as heretofore.

**Leasing entitlements;** where a farmer doesn't have enough land to claim their entitlements, these surplus entitlements can be leased out without land to a farmer who has surplus land.

*Note: The margins shown here do not include the Basic or Greening payments or the straw incorporation scheme for 2021, (details of which have yet to be announced). For protein crops such as Beans/Peas the Protein Crop subsidy (€3 million over 12,000 ha = €250/ha) is included. However this payment will be reduced if the national threshold of 12,000ha is breached.*

For more information see <https://www.teagasc.ie/crops/crops/greening/>

## Conacre appraisal

The following table will provide a guide for growers and land owners as to the value of conacre.

|   |   |  |
|---|---|--|
| 1 | Entitlement Value (€/ha)  |  |
| 2 | Gross Margin achievable (€/ha)  |  |
| 3 | Land issues* e.g. fertility, pH, P, K, trace elements, grass-weeds, other additional costs (€/ha) |  |
| 4 | Total available for rent + contribute to fixed costs + profit (€/ha) (1+2) - 3                    |  |

\* Growers also need to evaluate potential costs due to Greening when considering land rental.

## Material Costs

Level of yield has a major influence on profitability. Decisions on input strategies must be tailored for individual fields and farms. The prices of grain (+ other crop output) and fertilisers may vary considerably from those predicted. The fertiliser strategies contained within are guidelines only, hence growers are advised to complete a Nutrient Management Plan and utilise organic manures where feasible. Timeliness and attention to detail in carrying out all operations are vital to maintaining profitability in crop production. All material costs should be optimised, consistent with good husbandry practices.

## Machinery Costs

Investments in machinery require a thorough financial appraisal before any purchasing decision is taken. The average machinery cost (incl. repayments, depreciation, fuel and repairs) on 139 tillage farms (15,000 ha) in 2016 was €293/ha, this figure does not include labour. The cost of machinery is the largest single cost on tillage farms, typically about 30% of total growing costs and along with fertiliser and land rental account for approximately 70% of the total cost of growing crops. The total machinery costs on 14% of the farms surveyed in 2016 were higher than the estimated contractor costs, even before labour costs are taken into account. The machinery costs on these farms were analysed using the Teagasc Machinery Cost Calculator which is available from your local Teagasc Tillage Advisor.

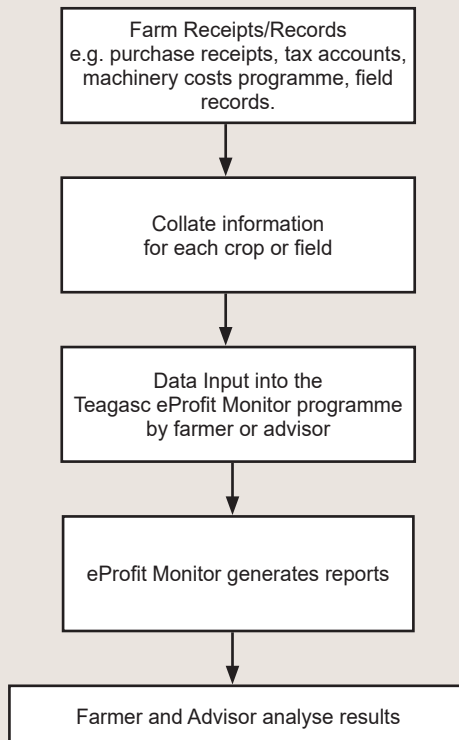
## Fixed Costs

Fixed costs such as repairs and maintenance, insurance, car ESB & phone etc. (not incl. interest, machinery or land rental) are unique to each farm. The average fixed costs recorded in the 2016 and 2018 Teagasc eProfit Monitor results is approximately €195/ha. However the data from the both years results also show that there can be a large variation in fixed costs (€147 - 230/ha) depending on each individual situation. Therefore, since fixed costs are largely unique to each individual farm, all farmers should calculate their own costs rather than using standard industry figures. The eProfit Monitor can be used calculate these figures for farmers.

## e-Profit Monitor

The Teagasc eProfit Monitor (ePM) is an online financial analysis tool that farmers can use to record the income and expenditure on farm for each specific enterprise and or crop in any given year. The ePM records both variable and fixed costs on the farm. The tool can help farmers to calculate both the gross and net profit of each individual crop on the own farm. The information is specific to the farmers own farm and the analysis simply shows what the farm made in terms of income from each crop and where your money was spent. The ePM records can then be used by the farmer to compare the performance of different crops on their own farm, these can also be compared against other farmers results with your advisor or in a discussion group format, they can also be compared against the national results which can be found here <https://www.teagasc.ie/crops/crops/reports--publications/crops-margins--ecrops/>. Farmers can then benchmark their own performance against their peers and then investigate areas in which they may improve. The results can also be compared over different years and in this way farmers can see trends in crop performance. For further details contact your local Teagasc office.

Four simple steps to farm completing EPM;



## EXPLANATORY NOTES

### Fixed or Overhead Costs per Hectare

Grassweed control (cultural/glyphosate) €18, Lime €20, Land maintenance, Car, ESB, Phone, regular hired labour & professional/agronomist fees etc. (Approx. €195/ha, Source 2016-2018 ePM)

**VAT is excluded from input costs and outputs**

### A. INPUT COSTS: CEREAL CROPS €/ha

**Seed:** €550/t Blue Label (Extra dressings/tonne: Latitude: €220 barley & wheat. Mn: €70)

**Rate:** W. Wheat - 170 kg/ha; W. Barley - 190 kg/ha

W + S Oats - 160 kg/ha; S. Barley & S. Wheat - 170 kg/ha

| Fertiliser:        | Total Fertiliser (kg/ha) |    |     | Fertiliser Bags (No. of 50kg bags/ha) |        |       |      |
|--------------------|--------------------------|----|-----|---------------------------------------|--------|-------|------|
|                    | N                        | P  | K   | CAN + S                               | Cmpnd* | 50% K | €/ha |
| <b>W. Wheat</b>    | 250                      | 37 | 110 | 15.8                                  | 7.4    | 1.4   | €345 |
| <b>W. Barley</b>   | 210                      | 37 | 100 | 12.8                                  | 7.4    | 1.0   | €303 |
| <b>W. Oats</b>     | 150                      | 37 | 130 | 8.4                                   | 7.4    | 2.2   | €271 |
| <b>S. Wheat</b>    | 190                      | 29 | 110 | 9.3                                   | 9.8    | 0.5   | €391 |
| <b>S. Barley</b>   | 165                      | 29 | 100 | 7.5                                   | 9.8    | -     | €262 |
| <b>Malt Barley</b> | 145                      | 29 | 100 | 6.0                                   | 9.8    | -     | €244 |
| <b>S. Oats</b>     | 131                      | 29 | 111 | 5.0                                   | 9.8    | 0.5   | €241 |

CAN + S @ €235/t; \*S. Cereals 13-6-20 @ €355/t; \*W. Cereals 10-10-20 @ €365/t; 50% K @ €340/t

N = Index 1 + yield bonus; P & K = Index 3 + yield bonus. Based on SI No. 605 of 2017.

**P & K Build Up** – At soil Index 1 & 2 additional P & K will cost €55 & 35/ha respectively.

**Herbicides:** W. Wheat €81/ha; W. Barley €96/ha; S Wheat & S Barley €75/ha; Oats €35/ha

|                           |  |  |
|---------------------------|--|--|
| <b>Fungicides:</b>        | <p><b>Winter Wheat:</b><br/>                     Leaf 4: Yellow rust control +/-<br/>                     Leaf 3: Eyespot + Broad Spectrum (B.S.) + multisite<br/>                     Flag leaf: Broad Spectrum (B.S.) + multisite<br/>                     Ear: B.S. (incl. Azole) @ G.S. 51-60</p> <p><b>Winter Barley:</b><br/>                     G.S. 25-30: 1/2 rate (Azole +SDHI) +/-<br/>                     G.S. 31-33: 1/2 rate (Azole + SDHI)<br/>                     G.S. 39-49: B.S. (incl. Azole/SDHI + multisite)</p> <p><b>S. Barley:</b> 2 Fungicides (Azole/SDHI/Strob/multisite) G.S. 30 &amp; 37-49</p> <p><b>S. Wheat:</b> 3 Fungicides (Azole/SDHI/Multisite) G.S. 30/31, 37/39, 51/60</p> <p><b>W. Oats:</b> Azole + morph at T1+T2, Triazole + SDHI at T3</p> <p><b>S. Oats:</b> Reduced Rates W. Oats</p> | <p>€213</p> <p>€126</p> <p>€92</p> <p>€135</p> <p>€126</p> <p>€110</p>             |
| <b>Insecticides:</b>      | Winter wheat: Red. Slug Pellets (€13/ha) + Aphicide (€5/ha)<br>Winter barley: contact €5/ha x 1<br>Other Cereals: Aphicide (€5/ha)   | <p>€18</p> <p>€5</p> <p>€5</p>   |
| <b>Growth Regulators:</b> | W. Wheat, W & S Oats =<br>Spring Wheat =<br>Winter Barley =  | <p>€15</p> <p>€10</p> <p>€30</p>   |
| <b>Hire</b>               | Plough (€80/ha), Till, Sow & Roll (€105/ha) (+ €19/ha press spring crops)  | €185   |
| <b>Machinery:</b>         | Spraying (@ €23/ha):<br>W. Wheat: Weeds + Aphids, PGR, Fungicide x 3 =<br>S. Wheat: Weeds + Aphids, PGR/Fungicide x 3 =<br>W. Barley: Weeds + Aphids, PGR/Fungicide x 3 =<br>S. Barley: Weeds + Aphids, Fungicide x 2 =<br>W. Oats: Weeds + Aphids, PGR/Fungicide x 3 =<br>Fertiliser Spreading (@ €17/ha) =<br>Harvesting =   | <p>€117</p> <p>€94</p> <p>€117</p> <p>€70</p> <p>€94</p> <p>€33-50</p> <p>€117</p> |
| <b>Interest 6%:</b>       | Seed + Fertiliser + 0.5 Agchem; Winter - 10 months; Spring - 6 months  |  |

# 2021 CEREAL CROP MARGINS

Variable Costs excl. VAT (€/ha)

|                                 | WHEAT       |             | FEED BARLEY |             | MALTING<br>BARLEY | FEED OATS   |             |
|---------------------------------|-------------|-------------|-------------|-------------|-------------------|-------------|-------------|
|                                 | Winter      | Spring      | Winter      | Spring      |                   | Winter      | Spring      |
| <b>MATERIALS</b>                | <b>765</b>  | <b>614</b>  | <b>660</b>  | <b>528</b>  | <b>523</b>        | <b>539</b>  | <b>496</b>  |
| Seed                            | 94          | 98          | 101         | 94          | 102               | 86          | 90          |
| Fertilisers                     | 345         | 291         | 303         | 262         | 244               | 271         | 241         |
| Sprays:                         |             |             |             |             |                   |             |             |
| Herbicides                      | 81          | 75          | 96          | 75          | 75                | 35          | 35          |
| Fungicides                      | 213         | 135         | 126         | 92          | 97                | 126         | 110         |
| Insecticides                    | 18          | 5           | 5           | 5           | 5                 | 5           | 5           |
| Growth Regulators               | 15          | 10          | 30          | 0           | 0                 | 15          | 15          |
| <b>HIRE MACHINERY</b>           | <b>469</b>  | <b>465</b>  | <b>469</b>  | <b>425</b>  | <b>425</b>        | <b>429</b>  | <b>448</b>  |
| Plough, One-pass & Roll         | 185         | 204         | 185         | 204         | 204               | 185         | 204         |
| Spray                           | 117         | 94          | 117         | 70          | 70                | 94          | 94          |
| Fertiliser Spreading            | 50          | 50          | 50          | 33          | 33                | 33          | 33          |
| Harvesting                      | 117         | 117         | 117         | 117         | 117               | 117         | 117         |
| <b>MISCELLANEOUS</b>            | <b>96</b>   | <b>69</b>   | <b>87</b>   | <b>61</b>   | <b>58</b>         | <b>76</b>   | <b>57</b>   |
| Interest (6%)                   | 30          | 15          | 27          | 13          | 13                | 22          | 12          |
| Transport (€ 6/Tonne)           | 66          | 54          | 60          | 48          | 45                | 54          | 45          |
| <b>TOTAL VARIABLE COSTS</b>     | <b>1330</b> | <b>1148</b> | <b>1216</b> | <b>1014</b> | <b>1006</b>       | <b>1044</b> | <b>1001</b> |
| Break-even yield (grain only)   | 8.1         | 7.0         | 7.9         | 6.6         | 5.2               | 7.0         | 6.7         |
| Cost per tonne @ target yields* | 121         | 128         | 122         | 127         | 134               | 116         | 134         |
| <b>Net Price (€/Tonne)</b>      | 165         | 165         | 153         | 153         | 195               | 150         | 150         |
| AID (BPS) = NOT included        | 0           | 0           | 0           | 0           | 0                 | 0           | 0           |
| Straw (€/ha)                    | 243         | 198         | 300         | 250         | 250               | 248         | 216         |

## Gross Margins (€/hectare)

(Incl. Straw)

| Tonnes/hectare | FEET WHEAT |        | FEED BARLEY |        | MALTING<br>BARLEY | FEED OATS |        |
|----------------|------------|--------|-------------|--------|-------------------|-----------|--------|
|                | Winter     | Spring | Winter      | Spring |                   | Winter    | Spring |
| 6.5            | -15        | 123    | 78          | 231    | 511               | 179       | 190    |
| 7.5            | 150        | 288    | 231         | 384    | 706               | 329       | 340    |
| 8.0            | 233        | 370    | 308         | 460    | 804               | 404       | 415    |
| 9.0            | 398        | 535    | 461         | 613    | 999               | 554       | 565    |
| 10.0           | 563        | 700    | 614         | 766    | 1194              | 704       |        |
| 11.0           | 728        |        | 767         |        |                   |           |        |
| 12.0           | 893        |        | 920         |        |                   |           |        |

Note: \*Crop margins are underlined for the various crop target yields.

Fertiliser requirements are based on target yields. Totals may not agree due to rounding. An online version of this calculator is available at <https://www.teagasc.ie/crops/crops/reports--publications/crops-margins--ecrops/>

## B. INPUT COSTS: NON CEREAL CROPS

€/ha

### Fertilisers/ha

|                    |                       |        |   |      |   |      |
|--------------------|-----------------------|--------|---|------|---|------|
| <b>Beet:</b>       | 1,000 kg Beet cmpnd @ | €330/t | = | €330 | } | €424 |
|                    | 400 kg CAN + S @      | €235/t | = | €94  |   |      |
| <b>Maize:</b>      | 620 kg 0-7-30 @       | €350/t | = | €217 | } | €374 |
|                    | 670 kg CAN + S        | €235/t | = | €157 |   |      |
| <b>Potatoes:</b>   | 1235 kg 7.6.17 + S    | €405/t | = | €500 | } | €547 |
|                    | 250 kg CAN            | €235/t | = | €47  |   |      |
| <b>Beans/Peas:</b> | 370 kg 0-7-30         | €350/t |   | €130 |   | €130 |
| <b>Winter OSR:</b> | 370 kg 10-10-20 @     | €365/t | = | €135 | } | €293 |
|                    | 250 kg Urea @         | €330/t | = | €83  |   |      |
|                    | 280 kg ASN @          | €270/t | = | €76  |   |      |
| <b>Spring OSR:</b> | 370 kg 13-6-20 @      | €355/t | = | €131 | } | €209 |
|                    | 330 kg CAN+S @        | €235/t | = | €78  |   |      |

Interest 6%: Beet, Maize, WOSR & Potatoes = 7 Months; Beans = 6 Months;  
SOSR & Peas = 5 Months

### Forward selling

The selling price of the grain is the principal driver of profitability on tillage farms however often prices at harvest are at their lowest. Most companies now offer farmers the opportunity to sell grain at different times of the year in order to reduce the risk of selling below cost. In order to forward sell growers need to know the cost of producing the grain on the farm. The tables below are based on the variable costs in this booklet and show the cost per tonne of producing grain at different yields excluding straw. Obviously the higher the yield the lower the cost per tonne will be as generally most crops receive a similar spend on inputs.

| Estimated cereal costs/tonne excl. straw |            |        |             |        |                |           |        |
|--|------------|--------|-------------|--------|----------------|-----------|--------|
| T/ha                                     | FEED WHEAT |        | FEED BARLEY |        | MALTING BARLEY | FEED OATS |        |
|  | Winter     | Spring | Winter      | Spring |                | Winter    | Spring |
| 6.5                                      | 205        | 175    | 189         | 156    | 155            | 161       | 154    |
| 7.5                                      | 177        | 152    | 163         | 135    | 134            | 139       | 134    |
| 8  | 166        | 142    | 153         | 127    | 126            | 131       | 125    |
| 9  | 148        | 127    | 136         | 113    | 112            | 116       | 111    |
| 10                                       | 133        | 114    | 123         | 101    | 101            | 104       | 100    |
| 11                                       | 121        |        | 111         |        |                |           |        |
| 12                                       | 111        |        |             |        |                |           |        |

| Costs per tonne excl. straw or protein payments |      |       |              |        |
|---|------|-------|--------------|--------|
| T/ha  | Peas | Beans | Oilseed Rape |        |
|   |      |       | Winter       | Spring |
| 2.0   | 454  | 461   | 594          | 425    |
| 2.5   | 363  | 369   | 475          | 340    |
| 3.0   | 303  | 308   | 396          | 284    |
| 4.0   | 227  | 231   | 297          | 213    |
| 4.5   | 202  | 205   | 264          | 189    |
| 5.0   | 182  | 185   | 238          | 170    |
| 5.5   | 165  | 168   | 216          | 155    |
| 6.0   | 151  | 154   | 198          | 142    |

**Note;** Farmers should calculate the costs per tonne over the three most recent harvests before making any decision to forward sell. This will give a more realistic figure to base the calculations on. The calculation is based on the total variable costs, including machinery costs, divided by the average yield.

Note; Figures above based on total variable costs

# 2021 NON-CEREAL CROP MARGINS

## Variable Costs excl. VAT (€ /hectare)

|                                 | FODDER<br>Beet | Potatoes<br>Main<br>Crop | MAIZE<br>Covered | PEAS<br>Feed | BEANS      | OILSEED RAPE |            |
|---------------------------------|----------------|--------------------------|------------------|--------------|------------|--------------|------------|
|                                 |                |                          |                  |              |            | Winter       | Spring     |
| <b>MATERIALS</b>                | <b>854</b>     | <b>2779</b>              | <b>664</b>       | <b>427</b>   | <b>450</b> | <b>618</b>   | <b>337</b> |
| Seed                            | 175            | 1500                     | 190              | 140          | 150        | 80           | 90         |
| Fertilisers                     | 424            | 547                      | 374              | 130          | 130        | 293          | 209        |
| Sprays:                         |                |                          |                  |              |            |              |            |
| Herbicides                      | 205            | 106                      | 100              | 80           | 80         | 121          | 30         |
| Fungicides                      | 30             | 505                      | 0                | 70           | 84         | 94           | 0          |
| Insecticides                    | 20             | 120                      | 0                | 7            | 7          | 30           | 8          |
| <b>HIRE MACHINERY</b>           | <b>677</b>     | <b>2568</b>              | <b>670</b>       | <b>429</b>   | <b>426</b> | <b>515</b>   | <b>487</b> |
| Plough, Till and Sow            | 250            | 775                      | 337              | 204          | 204        | 185          | 204        |
| Roll                            | 0              | 0                        | 0                | 18           | 18         | 18           | 18         |
| Spray                           | 94             | 421                      | 0                | 70           | 70         | 117          | 70         |
| Fertiliser Spreading            | 33             | 33                       | 33               | 17           | 17         | 50           | 50         |
| Swathing/Dessication            | 0              | 164                      | 0                | 0            | 0          | 28           | 28         |
| Harvesting (grading into store) | 300            | 1175                     | 300              | 120          | 117        | 117          | 117        |
| <b>MISCELLANEOUS</b>            | <b>480</b>     | <b>4177</b>              | <b>283</b>       | <b>53</b>    | <b>47</b>  | <b>55</b>    | <b>26</b>  |
| Interest (6%)                   | 30             | 97                       | 23               | 11           | 14         | 22           | 8          |
| Transport (€/Tonne)**           | 450            | 240                      | 0                | 30           | 33         | 27           | 18         |
| Bird Control                    | 0              | 0                        | 0                | 12           | 0          | 6            | 0          |
| Plastic Film/Potato storage***  | 0              | 3840                     | 260              | 0            | 0          | 0            | 0          |
| <b>TOTAL VARIABLE COSTS</b>     | <b>2011</b>    | <b>9524</b>              | <b>1618</b>      | <b>909</b>   | <b>923</b> | <b>1188</b>  | <b>851</b> |
| Break-even yield (excl. BPS)    | 57.4           | 38.1                     | 32.4             | 4.1          | 4.4        | 3.1          | 2.3        |
| <b>Net Price (€ /Tonne)</b>     | <b>35</b>      | <b>250</b>               | <b>50</b>        | <b>220</b>   | <b>210</b> | <b>385</b>   | <b>375</b> |
| (Protein Crops Scheme)          | 0              | 0                        | 0                | 250          | 250        | 0            | 0          |

## Gross Margins (€ /ha)\*

| Tonnes/ha<br>Pulses/OSR | Tonnage/ha<br>(Maize, beet & potatoes) | BEET | Potatoes<br>Main<br>Crop | MAIZE | PEAS | BEANS | OILSEED RAPE |        |
|-------------------------|--|------|--------------------------|-------|------|-------|--------------|--------|
|                         |  |      |                          |       |      |       | Winter       | Spring |
| 2.0                     |  |      |                          |       |      |       |              | -101   |
| 2.5                     |  |      |                          |       |      |       |              | 87     |
| 3.0                     |  |      | -2024                    | -118  |      | -43   |              | 274    |
| 35                      |  |      | -774                     | 132   | 221  | 167   | -33          | 649    |
| 40                      |  | -611 | 476                      | 382   | 331  | 272   | 545          | 837    |
| 50                      |  | -261 | 2976                     | 882   | 441  | 377   | 737          |        |
| 55                      |  | -86  |                          | 1132  | 551  | 482   |              |        |
| 65                      |  | 264  |                          | 1632  | 661  | 587   |              |        |
| 70                      |  | 439  |                          |       |      |       |              |        |
| 75                      |  | 614  |                          |       |      |       |              |        |
| 80                      |  | 789  |                          |       |      |       |              |        |

Note: Totals may not agree due to rounding

\*Gross margin does not include storage costs for beet or maize. \*\*Transport cost of €6/tonne at target yields. Maize harvesting cost includes transport to pit (4-5 trailers). \*\*\*Potato storage cost @ €16/t per month for 6 months at target yields

Note: Irrigation costs of approximately €175/ha per application can be added to machinery costs when needed.

# 2021 CEREAL CROP MARGINS

## Variable Costs excl. VAT (€/ac)

|                                 | FEED WHEAT        |                   | FEED BARLEY       |                   | MALTING<br>BARLEY | FEED OATS         |                   |
|---------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
|                                 | Winter            | Spring            | Winter            | Spring            |                   | Winter            | Spring            |
| <b>MATERIALS</b>                | <b><u>310</u></b> | <b><u>248</u></b> | <b><u>267</u></b> | <b><u>214</u></b> | <b><u>212</u></b> | <b><u>218</u></b> | <b><u>201</u></b> |
| Seed                            | 38                | 40                | 41                | 38                | 41                | 35                | 36                |
| Fertilisers                     | 140               | 118               | 123               | 106               | 99                | 110               | 98                |
| Sprays:                         |                   |                   |                   |                   |                   |                   |                   |
| Herbicides                      | 33                | 30                | 39                | 30                | 30                | 14                | 14                |
| Fungicides                      | 86                | 55                | 51                | 37                | 39                | 51                | 45                |
| Insecticides                    | 7                 | 2                 | 2                 | 2                 | 2                 | 2                 | 2                 |
| Growth Regulators               | 6                 | 4                 | 12                | 0                 | 0                 | 6                 | 6                 |
| <b>HIRE MACHINERY</b>           | <b><u>190</u></b> | <b><u>188</u></b> | <b><u>190</u></b> | <b><u>172</u></b> | <b><u>172</u></b> | <b><u>174</u></b> | <b><u>181</u></b> |
| Plough, One-pass & Roll         | 75                | 83                | 75                | 83                | 83                | 75                | 83                |
| Spray                           | 47                | 38                | 47                | 28                | 28                | 38                | 38                |
| Fertiliser Spreading            | 20                | 20                | 20                | 13                | 13                | 13                | 13                |
| Harvesting                      | 47                | 47                | 47                | 47                | 47                | 47                | 47                |
| <b>MISCELLANEOUS</b>            | <b><u>39</u></b>  | <b><u>28</u></b>  | <b><u>35</u></b>  | <b><u>25</u></b>  | <b><u>23</u></b>  | <b><u>31</u></b>  | <b><u>23</u></b>  |
| Interest (6%)                   | 12                | 6                 | 11                | 5                 | 5                 | 9                 | 5                 |
| Transport (€ 6/Tonne)           | 27                | 22                | 24                | 19                | 18                | 22                | 18                |
| <b>TOTAL VARIABLE COSTS</b>     | <b><u>538</u></b> | <b><u>464</u></b> | <b><u>492</u></b> | <b><u>410</u></b> | <b><u>407</u></b> | <b><u>423</u></b> | <b><u>405</u></b> |
| Break-even yield (grain only)   | 3.3               | 2.8               | 3.2               | 2.7               | 2.1               | 2.8               | 2.7               |
| Cost per tonne @ target yields* | 122               | 129               | 123               | 128               | 136               | 117               | 135               |
| <b>Net Price (€/Tonne)</b>      | 165               | 165               | 153               | 153               | 195               | 150               | 150               |
| AID (SFP)=NOT included          | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| Straw (€/ac)                    | 98                | 80                | 121               | 101               | 101               | 100               | 87                |

## Gross Margins (€/acre)

(Incl. Straw)

| Tonnes/acre | FEET WHEAT |            | FEED BARLEY |            | MALTING<br>BARLEY | FEED OATS  |            |
|-------------|------------|------------|-------------|------------|-------------------|------------|------------|
|             | Winter     | Spring     | Winter      | Spring     |                   | Winter     | Spring     |
| 2.6         | -11        | <u>45</u>  | <u>27</u>   | <u>89</u>  | <u>201</u>        | <u>68</u>  | <u>72</u>  |
| 3.0         | <u>55</u>  | <u>111</u> | <u>88</u>   | <u>150</u> | <u>279</u>        | <u>128</u> | <u>132</u> |
| 3.2         | <u>88</u>  | <u>144</u> | <u>119</u>  | <u>181</u> | <u>318</u>        | <u>158</u> | <u>162</u> |
| 3.6         | <u>154</u> | <u>210</u> | <u>180</u>  | <u>242</u> | <u>396</u>        | <u>218</u> | <u>222</u> |
| 4.0         | <u>220</u> | <u>276</u> | <u>241</u>  | <u>303</u> | <u>474</u>        | <u>278</u> |            |
| 4.4         | <u>286</u> |            | <u>302</u>  |            |                   |            |            |
| 4.9         | <u>368</u> |            |             |            |                   |            |            |

Note; \*Crop margins are underlined for the various crop target yields. Fertiliser requirements are based on target yields Totals may not agree due to rounding. An online version of this calculator is available at <https://www.teagasc.ie/crops/reports--publications/crops-margins--ecrops/>



# 2021 NON-CEREAL CROP MARGINS

Variable Costs excl. VAT (€ /ac)

|                                 | FODDER<br>Beet | Potatoes<br>Main<br>Crop | MAIZE<br>Covered | PEAS<br>Feed | BEANS      | OILSEED RAPE |            |
|---------------------------------|----------------|--------------------------|------------------|--------------|------------|--------------|------------|
|                                 |                |                          |                  |              |            | Winter       | Spring     |
| <b>MATERIALS</b>                | <b>346</b>     | <b>1124</b>              | <b>269</b>       | <b>173</b>   | <b>182</b> | <b>250</b>   | <b>136</b> |
| Seed                            | 71             | 607                      | 77               | 57           | 61         | 32           | 36         |
| Fertilisers                     | 172            | 221                      | 152              | 52           | 52         | 119          | 85         |
| Sprays:                         |                |                          |                  |              |            |              |            |
| Herbicides                      | 83             | 43                       | 40               | 32           | 32         | 49           | 12         |
| Fungicides                      | 12             | 205                      | 0                | 28           | 34         | 38           | 0          |
| Insecticides                    | 8              | 49                       | 0                | 3            | 3          | 12           | 3          |
| <b>HIRE MACHINERY</b>           | <b>274</b>     | <b>1039</b>              | <b>271</b>       | <b>174</b>   | <b>172</b> | <b>208</b>   | <b>197</b> |
| Plough, Till and Sow            | 101            | 314                      | 136              | 83           | 83         | 75           | 83         |
| Roll                            | 0              | 0                        | 0                | 7            | 7          | 7            | 7          |
| Spray/Irrigation                | 38             | 170                      | 0                | 28           | 28         | 47           | 28         |
| Fertiliser Spreading            | 13             | 13                       | 13               | 7            | 7          | 20           | 20         |
| Swathing/Dessication            | 0              | 66                       | 0                | 0            | 0          | 11           | 11         |
| Harvesting (grading into store) | 121            | 476                      | 121              | 49           | 47         | 47           | 47         |
| <b>MISCELLANEOUS</b>            | <b>194</b>     | <b>1690</b>              | <b>115</b>       | <b>21</b>    | <b>19</b>  | <b>22</b>    | <b>11</b>  |
| Interest (6%)                   | 12             | 39                       | 9                | 4            | 5          | 9            | 3          |
| Transport (€/Tonne)**           | 182            | 97                       | 0                | 12           | 13         | 11           | 7          |
| Bird Control                    | 0              | 0                        | 0                | 5            | 0          | 3            | 0          |
| Plastic Film/Potato Storage***  | 0              | 1554                     | 105              | 0            | 0          | 0            | 0          |
| <b>TOTAL VARIABLE COSTS</b>     | <b>814</b>     | <b>3854</b>              | <b>655</b>       | <b>368</b>   | <b>373</b> | <b>481</b>   | <b>344</b> |
| Break-even yield (excl. BPS)    | 23.2           | 15.4                     | 13.1             | 1.7          | 1.8        | 1.2          | 0.9        |
| <b>Net Price (€ /Tonne)</b>     | 35             | 250                      | 50               | 220          | 210        | 385          | 375        |
| (Protein Crop Subsidy)          | 0              | 0                        | 0                | 101          | 101        | 0            | 0          |

## Gross Margins (€/ac) \*

|  | Tonnes/ac<br>Pulses/OSR | BEET | Potatoes<br>Main<br>Crop | MAIZE | PEAS | BEANS | OILSEED RAPE |        |
|--|-------------------------|------|--------------------------|-------|------|-------|--------------|--------|
|  |                         |      |                          |       |      |       | Winter       | Spring |
| Tonnes/acre<br>(Maize, beet &<br>potatoes) | 1.0                     |      |                          |       |      |       |              | 31     |
| 12   | 1.2                     |      | -854                     | -55   |      |       | -19          | 106    |
| 14   | 1.4                     |      | -354                     | 45    | 41   | 22    | 58           | 181    |
| 16   | 2.0                     | -254 | 146                      | 145   | 173  | 148   | 289          | 406    |
| 20   | 2.2                     | -114 | 1146                     | 345   | 217  | 190   | 366          |        |
| 22   | 2.4                     | -44  |                          | 445   | 261  | 232   |              |        |
| 26   | 2.6                     | 96   |                          | 645   | 305  | 274   |              |        |
| 28   |                         | 166  |                          |       |      |       |              |        |
| 30   |                         | 236  |                          |       |      |       |              |        |
| 32   |                         | 306  |                          |       |      |       |              |        |

Note: Totals may not agree due to rounding

\* Gross margin does not include storage costs for beet, potatoes or maize

\*\* Transport cost of €/6/tonne at target yields. \*\*\*Potato storage cost @ €16/t per month for 6 months at target yields

Note: Irrigation costs of approximately €70 /ac per application can be added to machinery costs when needed.

# CROP BUDGETS & SHARE- FARMING

## Variable Costs excl. VAT (€/Acre)

|  |          | WINTER WHEAT |                 | SPRING BARLEY |                 | SHARE FARMING   |        |
|--|----------|--------------|-----------------|---------------|-----------------|-----------------|--------|
|  |          | Your Figures | Teagasc Figures | Your Figures  | Teagasc Figures | Landowner Share |        |
|  |          |              |                 |               |                 | WHEAT           | BARLEY |
| <b>MATERIALS</b><br>(A =B+C+D+E+F+G)               | <b>A</b> |              | <u>310</u>      |               | <u>214</u>      |                 |        |
| Seed   | <b>B</b> |              | 38              |               | 38              |                 |        |
| Fertilisers  | <b>C</b> |              | 140             |               | 106             |                 |        |
| Sprays:  |          |              |                 |               |                 |                 |        |
| Herbicides   | <b>D</b> |              | 33              |               | 30              |                 |        |
| Fungicides   | <b>E</b> |              | 86              |               | 37              |                 |        |
| Insecticides                                       | <b>F</b> |              | 7               |               | 2               |                 |        |
| Growth Regulators                                  | <b>G</b> |              | 6               |               | 0               |                 |        |
| <b>HIRE MACHINERY</b><br>(H = I+J+K+L)             | <b>H</b> |              | <u>190</u>      |               | <u>172</u>      |                 |        |
| Plough, Till and Sow                               | <b>I</b> |              | 75              |               | 83              |                 |        |
| Spray  | <b>J</b> |              | 47              |               | 28              |                 |        |
| Fertiliser Spreading                               | <b>K</b> |              | 20              |               | 13              |                 |        |
| Harvesting   | <b>L</b> |              | 47              |               | 47              |                 |        |
| <b>MISCELLANEOUS</b><br>(M =N+O)                   | <b>M</b> |              | <u>39</u>       |               | <u>25</u>       |                 |        |
| Interest (6%)                                      | <b>N</b> |              | 12              |               | 5               |                 |        |
| Transport (€6/Tonne)                               | <b>O</b> |              | 27              |               | 19              |                 |        |
| <b>TOTAL VARIABLE COSTS (P = A+H+M)</b>            | <b>P</b> |              | <u>538</u>      |               | <u>410</u>      |                 |        |
| Tonnes to cover variable costs (Q = P/R)           | <b>Q</b> |              | 3.3             |               | 2.7             |                 |        |
| <b>Net Price (€/Tonne)</b>                         | <b>R</b> |              | 165             |               | 153             |                 |        |
| AID (€/Acre)                                       | <b>S</b> |              | 0               |               | 0               |                 |        |
| Straw (€/Acre)                                     | <b>T</b> |              | 98              |               | 101             |                 |        |
| Projected yield                                    | <b>U</b> |              | 4.4             |               | 3.2             |                 |        |
| <b>Gross Margins (€/Acre)</b><br>(V = (R*U)+S+T-P) | <b>V</b> |              | <u>286</u>      |               | <u>181</u>      |                 |        |

An excel version of this calculator is available (free) from

<https://www.teagasc.ie/crops/crops/reports--publications/crops-margins--ecrops/>

Totals may not agree due to rounding

## 2021 FORAGE CROP MARGINS

Variable Costs excl. VAT (€/hectare)

| Crops for use on farm             | F. BEET     | W'CROP<br>WINTER<br>WHEAT | KALE       | RAPE       | STUBBLE<br>TURNIPS | MAIZE       |
|-----------------------------------|-------------|---------------------------|------------|------------|--------------------|-------------|
| <b>MATERIALS</b>                  | <b>854</b>  | <b>765</b>                | <b>421</b> | <b>258</b> | <b>143</b>         | <b>924</b>  |
| Seed                              | 175         | 94                        | 78         | 20         | 28                 | 190         |
| Fertilisers                       | 424         | 345                       | 283        | 238        | 115                | 374         |
| Plastic Film                      | 0           | 0                         | 0          | 0          | 0                  | 260         |
| Sprays:                           |             |                           |            |            |                    |             |
| Herbicides                        | 205         | 81                        | 60         | 0          | 0                  | 100         |
| Fungicides                        | 30          | 213                       | 0          | 0          | 0                  | 0           |
| Insecticides                      | 20          | 18                        | 0          | 0          | 0                  | 0           |
| Growth regulator                  |             | 15                        |            |            |                    |             |
| <b>HIRE MACHINERY</b>             | <b>1007</b> | <b>637</b>                | <b>225</b> | <b>202</b> | <b>97</b>          | <b>670</b>  |
| Seedbed Prep + sow                | 250         | 185                       | 185        | 185        | 80                 | 337         |
| Spray                             | 94          | 117                       | 23         | 0          | 0                  | 0           |
| Fertiliser Spreading              | 33          | 50                        | 17         | 17         | 17                 | 33          |
| Harvesting +Covering              | 300         | 285                       | 0          | 0          | 0                  | 300         |
| Washing and chopping              | 330         | 0                         | 0          | 0          | 0                  | 0           |
| <b>MISCELLANEOUS</b>              | <b>30</b>   | <b>30</b>                 | <b>21</b>  | <b>13</b>  | <b>7</b>           | <b>23</b>   |
| Interest 6%                       | 30          | 30                        | 21         | 13         | 7                  | 23          |
| <b>TOTAL VARIABLE COSTS</b>       | <b>1891</b> | <b>1432</b>               | <b>668</b> | <b>473</b> | <b>246</b>         | <b>1618</b> |
| GREEN YIELD<br>(Tonnes/hectare)   |             |                           |            |            |                    |             |
| Leaves(+roots) Fresh wt.          | 124         | 30                        | 37         | 42         | 25                 | 55          |
| DRY MATTER<br>(Tonnes/hectare)    | 13.0        | 12.5                      | 6.0        | 3.5        | 2.5                | 15.0        |
| <b>COST (€/Tonne utilised DM)</b> | 145         | 115                       | 111        | 135        | 99                 | 108         |
| <b>UFL Value (Kg DM)</b>          | 1.12        | 0.8                       | 1.05       | 1.1        | 1.2                | 0.8         |

Forage crops should be also evaluated on net energy, protein content and feeding system etc. to discern a more complete value.

Totals may not agree due to rounding. The table above is based on all crops being utilised on the farm on which they are grown therefore no transport charges apply.

### Comment on Forage Crop Costs

The convenience of growing, storing, feeding and animal performance, are important considerations when deciding which fodder crop to grow. As well as costs per ton of dry matter, forage crops should also be evaluated on net energy (UFL), protein content and feeding system to discern a more complete value. One UFL equals the energy content of 1kg of dried barley.

The opportunity cost of land should be taken into account when making comparisons of fodder and bought in feed. Thus a rental charge of €400/ha may be applied for a full year in the case of grazed grass, maize and whole crop cereals but proportionally less in the case of grass silage and brassicas.

## Share farming

Share Farming is an agreement between two individuals (or two businesses) to jointly manage a farming operation. This legal agreement allows both the grower and the landowner to farm as separate legal entities but share in the risks and rewards of growing crops. As both individuals remain separate business entities, they can continue to claim the EU/DAFM payments etc. in their own name as normal.

### Key points:

- Share Farming is fully compliant with EU/DAFM schemes
- The agreement is **not** land rental or a Partnership agreement
- The output generated from the land are to reward the
  - Landowner for the land, labour and inputs supplied
  - Share farmer for labour, expertise and inputs supplied
- Both parties are separate business entities and must not open or operate joint accounts to run the farming operation
- Share farming is compatible with the Basic Payment Scheme and Greening, subject to conditions.

A template of a Share Farm Agreement is available on

<https://www.teagasc.ie/rural-economy/farm-management/collaborative-farming/share-farming---crops/> which also displays example agreements. Contact your local advisor for more details.

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