

Input data

Rapeseed production data

Quantity rapeseed 2,45 t

Quantity of biofuel

| Year | N,t | P ₂ O ₅ , t | K ₂ O, t | Land fertilised with N, '000 ha | Land fertilised with P ₂ O ₅ |
|------|---------|-----------------------------------|---------------------|---------------------------------|--|
| 2007 | 177 936 | 29 607 | 13 516 | 1 972,60 | 174,48 |
| 2008 | 173 917 | 30 558 | 12 950 | 2 066,70 | 218 |
| 2009 | 177 553 | 30 661 | 11 823 | 2 190,50 | 318,4 |
| | | | | | |

| WHEAT | Yield, kg/ha | N, kg/ha | P2O5, kg/ha | K2O,kg/ha | total |
|------------------|--------------|----------|-------------|-----------|-------|
| North-West | 3067 | 53,87 | 9,47 | 4,01 | 67,35 |
| North-Central | 3453 | 60,65 | 10,66 | 4,52 | 75,82 |
| North-East | 3866 | 67,90 | 11,93 | 5,06 | 84,89 |
| South-East | 3343 | 58,72 | 10,32 | 4,37 | 73,41 |
| South-West | 2836 | 49,81 | 8,75 | 3,71 | 62,27 |
| South-Central | 2847 | 50,01 | 8,79 | 3,72 | 62,52 |
| | 3235 | | | | |
| MAIZE | | | | | |
| North-West | 3601 | 49,86 | 8,76 | 3,71 | 62,34 |
| North-Central | 3943 | 54,60 | 9,59 | 4,07 | 68,26 |
| North-East | 4366 | 60,46 | 10,62 | 4,50 | 75,58 |
| South-East | 4638 | 64,22 | 11,28 | 4,78 | 80,29 |
| South-West | 3933 | 54,46 | 9,57 | 4,06 | 68,09 |
| South-Central | 4142 | 57,35 | 10,08 | 4,27 | 71,70 |
| | 4104 | | | | |
| SUNFLOWER | | | | | |
| North-West | 1649 | 57,83 | 10,16 | 4,31 | 72,29 |
| North-Central | 1844 | 64,66 | 11,36 | 4,81 | 80,84 |
| North-East | 1936 | 67,89 | 11,93 | 5,06 | 84,87 |
| South-East | 1524 | 53,44 | 9,39 | 3,98 | 66,81 |
| South-West | 1322 | 46,36 | 8,15 | 3,45 | 57,96 |
| South-Central | 1448 | 50,78 | 8,92 | 3,78 | 63,48 |
| | 1620,5 | | | | |
| RAPESEED | | | | | |
| North-West | 2719 | 64,10 | 11,26 | 4,77 | 80,14 |
| North-Central | 1864 | 43,95 | 7,72 | 3,27 | 54,94 |

| | | | | | |
|---------------|------|-------|-------|------|-------|
| North-East | 2746 | 64,74 | 11,38 | 4,82 | 80,94 |
| South-East | 2273 | 53,59 | 9,42 | 3,99 | 66,99 |
| South-West | 2431 | 57,31 | 10,07 | 4,27 | 71,65 |
| South-Central | 2429 | 57,27 | 10,06 | 4,26 | 71,59 |
| | 2410 | | | | |

| seed rate-kg/ha | kgCO2eq/kg seeds | Emissions from seeds, kg CO2eq/ha | Fuel- Total, kgCO2eq/ha |
|------------------------|------------------|-----------------------------------|-------------------------|
| wheat -seed rate-kg/ha | | | |
| 220 | 0,2759 | 60,698 | 200,79 |
| MAIZE | | | |
| 25 | 0 | 0 | 200,79 |
| SUNFLOWER | | | |
| 5 | 0,7299 | 3,6495 | 200,79 |
| RAPESEED | | | |
| 8 | 0,7299 | 5,8392 | 200,79 |

| fuel - l | kg/ha | MJ/ha | EF CO2,g/MJ | emissions CO2, kg | EFCH4, mg/MJ |
|----------|-------|---------|-------------|-------------------|--------------|
| 73 | 61,7 | 2609,91 | 76,1404 | 198,7 | 9,84 |
| | 61,7 | 2609,91 | 76,1404 | 198,7 | 9,84 |
| | 61,7 | 2609,91 | 76,1404 | 198,7 | 9,84 |
| | 61,7 | 2609,91 | 76,1404 | 198,7 | 9,84 |
| | 61,7 | 2609,91 | 76,1404 | 198,7 | 9,84 |
| | 61,7 | 2609,91 | 76,1404 | 198,7 | 9,84 |

3,254238959

**N,kg/ha,
average**

| | | |
|-----------|------|-------|
| wheat | 42,6 | 4,388 |
| maize | 55,8 | |
| sunflower | 41,6 | |
| rapeseed | 91 | |

average fertilizer

| Land fertilised with K ₂ O, 000 ha | N,kg/ha | P ₂ O ₅ , kg/ha | K ₂ O, kg/ha | |
|---|---------|---------------------------------------|-------------------------|-------|
| 95,34 | 90,20 | 169,69 | 141,77 | |
| 163,4 | 56,83 | 9,98 | 4,23 | 71,04 |
| 124,9 | 81,06 | 96,30 | 94,66 | |

| |
|---|
| Emissions kgCO ₂ eq/ha of nutrient |
|---|

| |
|---|
| Emissions kgCO ₂ eq/ha from pesticides |
|---|

| | | | |
|--------|-------|------|--------|
| 316,79 | 9,57 | 2,31 | 328,66 |
| 356,66 | 10,77 | 2,60 | 370,03 |
| 399,31 | 12,06 | 2,91 | 414,29 |
| 345,29 | 10,43 | 2,52 | 358,24 |
| 292,93 | 8,85 | 2,14 | 303,91 |
| 294,06 | 8,88 | 2,15 | 305,09 |

| |
|-------|
| 4,388 |
| 4,388 |
| 4,388 |
| 4,388 |
| 4,388 |
| 4,388 |

| | | | |
|--------|-------|------|--------|
| 293,23 | 8,86 | 2,14 | 304,22 |
| 321,08 | 9,70 | 2,34 | 333,12 |
| 355,52 | 10,74 | 2,59 | 368,85 |
| 377,67 | 11,41 | 2,75 | 391,83 |
| 320,26 | 9,67 | 2,34 | 332,27 |
| 337,28 | 10,19 | 2,46 | 349,93 |

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| 4,388 |
| 4,388 |
| 4,388 |
| 4,388 |
| 4,388 |
| 4,388 |

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|--------|-------|------|--------|
| 340,05 | 10,27 | 2,48 | 352,80 |
| 380,26 | 11,48 | 2,77 | 394,52 |
| 399,23 | 12,06 | 2,91 | 414,20 |
| 314,27 | 9,49 | 2,29 | 326,06 |
| 272,62 | 8,23 | 1,99 | 282,84 |
| 298,60 | 9,02 | 2,18 | 309,80 |

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| 4,388 |
| 4,388 |
| 4,388 |
| 4,388 |
| 4,388 |
| 4,388 |

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|--------|-------|------|--------|
| 376,97 | 11,38 | 2,75 | 391,10 |
| 258,43 | 7,80 | 1,89 | 268,12 |

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|-------|
| 4,388 |
| 4,388 |

| | | | |
|--------|-------|------|--------|
| 380,71 | 11,50 | 2,78 | 394,99 |
| 315,13 | 9,52 | 2,30 | 326,95 |
| 337,04 | 10,18 | 2,46 | 349,68 |
| 336,76 | 10,17 | 2,46 | 349,39 |

| |
|-------|
| 4,388 |
| 4,388 |
| 4,388 |
| 4,388 |

| emissions CH4, kgCO2eq | EF N2O, mg/MJ | emissions N2O, kgCO2eq | Total, kgCO2eq/ ha |
|------------------------------|------------------|------------------------------|--------------------------|
| 0,59 | 1,91 | 1,48 | 200,79 |
| 0,59 | 1,91 | 1,48 | 200,79 |
| 0,59 | 1,91 | 1,48 | 200,79 |
| 0,59 | 1,91 | 1,48 | 200,79 |
| 0,59 | 1,91 | 1,48 | 200,79 |
| 0,59 | 1,91 | 1,48 | 200,79 |

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| Crop | Product | Average biofuel yield | Allocation on the basis of energy content, AF % | Source | | | |
|--------------|------------|---|---|----------|------|----------|----------|
| 1. Rapeseed | biodiesel | 2.45 t rapeseed yields 1 t biodiesel, 1406 kg meal and 90 kg glycerol | 61,37% | NAB | 2450 | 60286,44 | 61,37367 |
| 2. Sunflower | biodiesel | 2,54 t sunflower yields 1 t biodiesel, 963 kg meal and 90 kg glycerol | 69,27% | NAB | 2540 | 53424,37 | 69,25678 |
| 3. Wheat | bioethanol | 3.55 t wheat yields 1 t bioethanol and 520 kg DDGS(8-10% moisture) | 75,15% | Evroetil | 3550 | | |
| 4. Maize | bioethanol | 3.17 t maize yields 1 tonne of bioethanol and 460 kg DDGS | 77,37% | Evroetil | 3170 | | |

The lower calorific value of biodiesel is 37 MJ/kg (according to NSI)

The lower calorific value of glycerol is 16,75 MJ/kg

The lower calorific value of oilseed meal is 15,49 MJ/kg

The lower calorific value of bioethanol is 26,74 MJ/kg (Technical University of Varna)

The lower calorific value of DDGS is 17 MJ/kg (NABB)

Direct emissions

| | Yield, kg/ha | N, kg/ha | Crop T(dry matter), kg/ha | Area, ha | area burnt | Cf | Frac renew | R AG | N AG | AG dm | R BG | N bg | F CR | N2O-N | N2O | kgCO2e q/ha |
|------------------|--------------|----------|---------------------------|----------|------------|------|------------|-------|-------|--------|-------|-------|-------|-------|-------|-------------|
| WHEAT | | | | | | | | | | | | | | | | |
| North-West | 3067 | 53,87 | 2606,95 | 1 | 0,03 | 0,90 | 1,00 | 1,300 | 0,003 | 4,4565 | 0,650 | 0,009 | 24,08 | 0,779 | 1,225 | 362,57 |
| North-Central | 3453 | 60,65 | 2935,05 | 1 | 0,03 | 0,90 | 1,00 | 1,300 | 0,003 | 4,9519 | 0,645 | 0,009 | 26,97 | 0,876 | 1,377 | 407,56 |
| North-East | 3866 | 67,90 | 3286,10 | 1 | 0,03 | 0,90 | 1,00 | 1,300 | 0,003 | 5,4820 | 0,640 | 0,009 | 30,07 | 0,980 | 1,540 | 455,70 |
| South-East | 3343 | 58,72 | 2841,55 | 1 | 0,03 | 0,90 | 1,00 | 1,300 | 0,003 | 4,8107 | 0,646 | 0,009 | 26,15 | 0,849 | 1,334 | 394,74 |
| South-West | 2836 | 49,81 | 2410,60 | 1 | 0,03 | 0,90 | 1,00 | 1,300 | 0,003 | 4,1600 | 0,654 | 0,009 | 22,35 | 0,722 | 1,134 | 335,64 |
| South-Central | 2847 | 50,01 | 2419,95 | 1 | 0,03 | 0,90 | 1,00 | 1,300 | 0,003 | 4,1741 | 0,654 | 0,009 | 22,43 | 0,724 | 1,138 | 336,93 |
| | 3235 | | | | | | | | | | | | | | | |
| MAIZE | | | | | | | | | | | | | | | | |
| North-West | 3601 | 49,86 | 3204,89 | 1 | 0,03 | 0,80 | 1,00 | 1,22 | 0,006 | 3,9110 | 0,488 | 0,007 | 33,60 | 0,835 | 1,312 | 388,22 |
| North-Central | 3943 | 54,60 | 3509,27 | 1 | 0,03 | 0,80 | 1,00 | 1,20 | 0,006 | 4,2245 | 0,485 | 0,007 | 36,36 | 0,910 | 1,429 | 423,11 |
| North-East | 4366 | 60,46 | 3885,74 | 1 | 0,03 | 0,80 | 1,00 | 1,19 | 0,006 | 4,6123 | 0,481 | 0,007 | 39,78 | 1,002 | 1,575 | 466,26 |
| South-East | 4638 | 64,22 | 4127,82 | 1 | 0,03 | 0,80 | 1,00 | 1,18 | 0,006 | 4,8617 | 0,479 | 0,007 | 41,98 | 1,062 | 1,669 | 494,00 |
| South-West | 3933 | 54,46 | 3500,37 | 1 | 0,03 | 0,80 | 1,00 | 1,20 | 0,006 | 4,2154 | 0,485 | 0,007 | 36,28 | 0,907 | 1,426 | 422,09 |
| South-Central | 4142 | 57,35 | 3686,38 | 1 | 0,03 | 0,80 | 1,00 | 1,20 | 0,006 | 4,4070 | 0,483 | 0,007 | 37,97 | 0,953 | 1,498 | 443,41 |
| | 4104 | | | | | | | | | | | | | | | |
| SUNFLOWER | | | | | | | | | | | | | | | | |
| North-West | 1649 | 57,83 | 1451,12 | 1 | 0,03 | 0,80 | 1,00 | 1,30 | 0,006 | 2,462 | 0,593 | 0,008 | 17,77 | 0,756 | 1,188 | 351,62 |
| North-Central | 1844 | 64,66 | 1622,72 | 1 | 0,03 | 0,80 | 1,00 | 1,30 | 0,006 | 2,649 | 0,579 | 0,008 | 19,69 | 0,844 | 1,326 | 392,37 |
| North-East | 1936 | 67,89 | 1703,68 | 1 | 0,03 | 0,80 | 1,00 | 1,30 | 0,006 | 2,737 | 0,573 | 0,008 | 20,60 | 0,885 | 1,391 | 411,60 |
| South-East | 1524 | 53,44 | 1341,12 | 1 | 0,03 | 0,80 | 1,00 | 1,30 | 0,006 | 2,342 | 0,604 | 0,008 | 16,54 | 0,700 | 1,100 | 325,50 |
| South-West | 1322 | 46,36 | 1163,36 | 1 | 0,03 | 0,80 | 1,00 | 1,30 | 0,006 | 2,148 | 0,626 | 0,008 | 14,54 | 0,609 | 0,957 | 283,29 |
| South-Central | 1448 | 50,78 | 1274,24 | 1 | 0,03 | 0,80 | 1,00 | 1,30 | 0,006 | 2,269 | 0,612 | 0,008 | 15,79 | 0,666 | 1,046 | 309,62 |
| | 1620,5 | | | | | | | | | | | | | | | |
| RAPESEED | | | | | | | | | | | | | | | | |
| North-West | 2719 | 64,10 | 2392,72 | 1 | 0,03 | 0,80 | 1,00 | 1,46 | 0,006 | 3,488 | 0,541 | 0,008 | 30,53 | 0,946 | 1,487 | 440,17 |
| North-Central | 1864 | 43,95 | 1640,32 | 1 | 0,03 | 0,80 | 1,00 | 1,63 | 0,006 | 2,668 | 0,578 | 0,008 | 23,02 | 0,670 | 1,052 | 311,51 |
| North-East | 2746 | 64,74 | 2416,48 | 1 | 0,03 | 0,80 | 1,00 | 1,45 | 0,006 | 3,514 | 0,540 | 0,008 | 30,76 | 0,955 | 1,501 | 444,23 |
| South-East | 2273 | 53,59 | 2000,24 | 1 | 0,03 | 0,80 | 1,00 | 1,53 | 0,006 | 3,060 | 0,557 | 0,008 | 26,61 | 0,802 | 1,260 | 373,06 |
| South-West | 2431 | 57,31 | 2139,28 | 1 | 0,03 | 0,80 | 1,00 | 1,50 | 0,006 | 3,212 | 0,550 | 0,008 | 28,00 | 0,853 | 1,341 | 396,83 |
| South-Central | 2429 | 57,27 | 2137,52 | 1 | 0,03 | 0,80 | 1,00 | 1,50 | 0,006 | 3,210 | 0,550 | 0,008 | 27,98 | 0,852 | 1,340 | 396,53 |

2410

Indirect emissions
atm. Deposition

| | Yield, kg/ha | N, kg/ha | N2O- N,kg/ha | N2O, kg/ha | kgCO2eq /ha |
|---------------|-----------------|----------|-----------------|---------------|----------------|
| WHEAT | | | | | |
| North-West | 3067 | 53,87 | 0,054 | 0,085 | 25,06 |
| North-Central | 3453 | 60,65 | 0,061 | 0,095 | 28,21 |
| North-East | 3866 | 67,90 | 0,068 | 0,107 | 31,58 |
| South-East | 3343 | 58,72 | 0,059 | 0,092 | 27,31 |
| South-West | 2836 | 49,81 | 0,050 | 0,078 | 23,17 |
| South-Central | 2847 | 50,01 | 0,050 | 0,079 | 23,26 |
| MAIZE | | | | | |
| North-West | 3601 | 49,86 | 0,050 | 0,078 | 23,19 |
| North-Central | 3943 | 54,60 | 0,055 | 0,086 | 25,40 |
| North-East | 4366 | 60,46 | 0,060 | 0,095 | 28,12 |
| South-East | 4638 | 64,22 | 0,064 | 0,101 | 29,87 |
| South-West | 3933 | 54,46 | 0,054 | 0,086 | 25,33 |
| South-Central | 4142 | 57,35 | 0,057 | 0,090 | 26,68 |
| SUNFLOWER | | | | | |
| North-West | 1649 | 57,83 | 0,058 | 0,091 | 26,90 |
| North-Central | 1844 | 64,66 | 0,065 | 0,102 | 30,08 |
| North-East | 1936 | 67,89 | 0,068 | 0,107 | 31,58 |
| South-East | 1524 | 53,44 | 0,053 | 0,084 | 24,86 |
| South-West | 1322 | 46,36 | 0,046 | 0,073 | 21,56 |
| South-Central | 1448 | 50,78 | 0,051 | 0,080 | 23,62 |
| RAPESEED | | | | | |
| North-West | 2719 | 64,10 | 0,064 | 0,101 | 29,82 |
| North-Central | 1864 | 43,95 | 0,044 | 0,069 | 20,44 |
| North-East | 2746 | 64,74 | 0,065 | 0,102 | 30,11 |
| South-East | 2273 | 53,59 | 0,054 | 0,084 | 24,93 |
| South-West | 2431 | 57,31 | 0,057 | 0,090 | 26,66 |
| South-Central | 2429 | 57,27 | 0,057 | 0,090 | 26,64 |

N2O-N leaching/runoff

| | Yield, kg/ha | N, kg/ha | N2O-N, kg/ha | N2O, kg/ha | Total indirect, kgCO2eq/ha | Total direct, kgCO2eq/ha | Total indir+direct, kg CO2eq/ha |
|---------------|-----------------|----------|-----------------|---------------|-------------------------------|-----------------------------|--|
| WHEAT | | | | | | | |
| North-West | 3067 | 77,95 | 0,175 | 0,276 | 106,64 | 362,57 | 469,20 |
| North-Central | 3453 | 87,62 | 0,197 | 0,310 | 119,91 | 407,56 | 527,47 |
| North-East | 3866 | 97,97 | 0,220 | 0,346 | 134,12 | 455,70 | 589,82 |
| South-East | 3343 | 84,86 | 0,191 | 0,300 | 116,13 | 394,74 | 510,87 |
| South-West | 2836 | 72,16 | 0,162 | 0,255 | 98,69 | 335,64 | 434,33 |
| South-Central | 2847 | 72,44 | 0,163 | 0,256 | 99,07 | 336,93 | 435,99 |
| MAIZE | | | | | | | |
| North-West | 3601 | 83,46 | 0,188 | 0,295 | 110,54 | 388,22 | 498,76 |
| North-Central | 3943 | 90,96 | 0,205 | 0,322 | 120,60 | 423,11 | 543,70 |
| North-East | 4366 | 100,24 | 0,226 | 0,354 | 133,03 | 466,26 | 599,28 |
| South-East | 4638 | 106,20 | 0,239 | 0,376 | 141,02 | 494,00 | 635,03 |
| South-West | 3933 | 90,74 | 0,204 | 0,321 | 120,30 | 422,09 | 542,39 |
| South-Central | 4142 | 95,33 | 0,214 | 0,337 | 126,44 | 443,41 | 569,85 |
| SUNFLOWER | | | | | | | |
| North-West | 1649 | 75,59 | 0,170 | 0,267 | 106,01 | 351,62 | 457,63 |
| North-Central | 1844 | 84,35 | 0,190 | 0,298 | 118,36 | 392,37 | 510,73 |
| North-East | 1936 | 88,49 | 0,199 | 0,313 | 124,19 | 411,60 | 535,78 |
| South-East | 1524 | 69,98 | 0,157 | 0,247 | 98,10 | 325,50 | 423,60 |
| South-West | 1322 | 60,90 | 0,137 | 0,215 | 85,30 | 283,29 | 368,59 |
| South-Central | 1448 | 66,56 | 0,150 | 0,235 | 93,28 | 309,62 | 402,90 |
| RAPESEED | | | | | | | |
| North-West | 2719 | 94,63 | 0,213 | 0,335 | 128,86 | 440,17 | 569,03 |
| North-Central | 1864 | 66,97 | 0,151 | 0,237 | 90,53 | 311,51 | 402,04 |
| North-East | 2746 | 95,51 | 0,215 | 0,338 | 130,07 | 444,23 | 574,30 |
| South-East | 2273 | 80,20 | 0,180 | 0,284 | 108,86 | 373,06 | 481,92 |
| South-West | 2431 | 85,31 | 0,192 | 0,302 | 115,95 | 396,83 | 512,78 |
| South-Central | 2429 | 85,25 | 0,192 | 0,301 | 115,86 | 396,53 | 512,39 |

Results

wheat

| Region | yield, kg | emissions, kgCO ₂ eq/ha | AF | gCO ₂ eq/MJ |
|---------------|-----------|------------------------------------|--------|------------------------|
| North-West | 3067 | 1063,74 | 0,7515 | 34,61 |
| North-Central | 3453 | 1163,37 | 0,7515 | 33,62 |
| North-East | 3866 | 1269,98 | 0,7515 | 32,78 |
| South-East | 3343 | 1134,98 | 0,7515 | 33,88 |
| South-West | 2836 | 1004,12 | 0,7515 | 35,34 |
| South-Central | 2847 | 1006,96 | 0,7515 | 35,30 |

maize

| Region | yield, kg | emissions, kg CO ₂ eq/ha | AF | gCO ₂ eq/MJ |
|---------------|-----------|-------------------------------------|------|------------------------|
| North-West | 3601 | 1008,16 | 0,77 | 25,57 |
| North-Central | 3943 | 1081,99 | 0,77 | 25,06 |
| North-East | 4366 | 1173,31 | 0,77 | 24,55 |
| South-East | 4638 | 1232,03 | 0,77 | 24,26 |
| South-West | 3933 | 1079,83 | 0,77 | 25,08 |
| South-Central | 4142 | 1124,95 | 0,77 | 24,81 |

sunflower

| Region | yield, kg | emissions, gCO ₂ eq/ha | AF | gCO ₂ eq/ha |
|---------------|-----------|-----------------------------------|------|------------------------|
| North-West | 1649 | 1019,26 | 0,69 | 29,27 |
| North-Central | 1844 | 1114,08 | 0,69 | 28,61 |
| North-East | 1936 | 1158,81 | 0,69 | 28,35 |
| South-East | 1524 | 958,48 | 0,69 | 29,78 |
| South-West | 1322 | 860,25 | 0,69 | 30,82 |
| South-Central | 1448 | 921,52 | 0,69 | 30,14 |

rapeseed

| Region | yield, kg | emissions, gCO ₂ eq/ha | AF | gCO ₂ eq/ha |
|---------------|-----------|-----------------------------------|-------|------------------------|
| North-West | 2719 | 1171,15 | 0,614 | 17,51 |
| North-Central | 1864 | 881,17 | 0,614 | 19,22 |
| North-East | 2746 | 1180,30 | 0,614 | 17,48 |
| South-East | 2273 | 1019,88 | 0,614 | 18,24 |
| South-West | 2431 | 1073,47 | 0,614 | 17,96 |
| South-Central | 2429 | 1072,79 | 0,614 | 17,95 |

Directive
23

20

92,085576

18

29

| | | | Crop T(dry matter), kg/ha | AG | Rag | N AG | R bg | Nbg | F cr | N2O-N | N2O | kgCO2eq/h |
|---------------|--------------|----------|------------------------------|-------|----------|--------|-------|-------|----------|----------|----------|-----------|
| WHEAT | Yield, kg/ha | N, kg/ha | | | | | | | | | | |
| North-West | 3067,0 | 53,9 | 2606,95 | 0,000 | 0 | 0,0028 | 0,893 | 0,009 | 0,008037 | 0,538778 | 0,846651 | 250,6088 |
| North-Central | 3453,0 | 60,6 | 2935,05 | 3,700 | 1,260626 | 0,0028 | 0,893 | 0,009 | 10,36804 | 0,710176 | 1,115991 | 330,3334 |
| North-East | 3866,0 | 67,9 | 3286,1 | 3,700 | 1,125955 | 0,0028 | 0,893 | 0,009 | 10,36804 | 0,782717 | 1,229984 | 364,0752 |
| South-East | 3343,0 | 58,7 | 2841,55 | 3,700 | 1,302106 | 0,0028 | 0,893 | 0,009 | 10,36804 | 0,690856 | 1,08563 | 321,3465 |
| South-West | 2836,0 | 49,8 | 2410,6 | 3,700 | 1,534888 | 0,0028 | 0,893 | 0,009 | 10,36804 | 0,601804 | 0,945693 | 279,9251 |
| South-Central | 2847,0 | 50,0 | 2419,95 | 3,700 | 1,528957 | 0,0028 | 0,893 | 0,009 | 10,36804 | 0,603737 | 0,948729 | 280,8237 |
| MAIZE | | | 0 | | | | | | | | | |
| North-West | 3601,0 | 49,9 | 2790,775 | | | | | | | | | |
| North-Central | 3943,0 | 54,6 | 3055,825 | | | | | | | | | |
| North-East | 4366,0 | 60,5 | 3383,65 | | | | | | | | | |
| South-East | 4638,0 | 64,2 | 3594,45 | | | | | | | | | |
| South-West | 3933,0 | 54,5 | 3048,075 | | | | | | | | | |
| South-Central | 4142,0 | 57,4 | 3210,05 | | | | | | | | | |
| SUNFLOWER | | | 0 | | | | | | | | | |
| North-West | 1649,0 | 57,8 | 1467,61 | | | | | | | | | |
| North-Central | 1844,0 | 64,7 | 1641,16 | | | | | | | | | |
| North-East | 1936,0 | 67,9 | 1723,04 | | | | | | | | | |
| South-East | 1524,0 | 53,4 | 1356,36 | | | | | | | | | |
| South-West | 1322,0 | 46,4 | 1176,58 | | | | | | | | | |
| South-Central | 1448,0 | 50,8 | 1288,72 | | | | | | | | | |
| | | | 0 | | | | | | | | | |
| RAPSEED | | | 0 | | | | | | | | | |
| North-West | 2719,0 | 64,1 | 2419,91 | | | | | | | | | |
| North-Central | 1864,0 | 43,9 | 1658,96 | | | | | | | | | |
| North-East | 2746,0 | 64,7 | 2443,94 | | | | | | | | | |
| South-East | 2273,0 | 53,6 | 2022,97 | | | | | | | | | |
| South-West | 2431,0 | 57,3 | 2163,59 | | | | | | | | | |
| South-Central | 2429,0 | 57,3 | 2161,81 | | | | | | | | | |

Fertilisers Pesticides

| | | | |
|---------------|--------|-------|-------|
| North-West | 328,66 | 4,388 | #REF! |
| North-Central | 370,03 | 4,388 | #REF! |
| North-East | 414,29 | 4,388 | #REF! |
| South-East | 358,24 | 4,388 | #REF! |
| South-West | 303,91 | 4,388 | #REF! |
| South-Central | 305,09 | 4,388 | #REF! |

Fertilisers Pesticides

| | | | |
|---------------|--------|-------|-------|
| North-West | 304,22 | 4,388 | #REF! |
| North-Central | 333,12 | 4,388 | #REF! |
| North-East | 368,85 | 4,388 | #REF! |
| South-East | 391,83 | 4,388 | #REF! |
| South-West | 332,27 | 4,388 | #REF! |
| South-Central | 349,93 | 4,388 | #REF! |

Fertilisers Pesticides

| | | | |
|---------------|--------|-------|-------|
| | | | #REF! |
| North-West | 352,8 | 4,388 | #REF! |
| North-Central | 394,52 | 4,388 | #REF! |
| North-East | 414,2 | 4,388 | #REF! |
| South-East | 326,06 | 4,388 | #REF! |
| South-West | 282,84 | 4,388 | #REF! |
| South-Central | 309,8 | 4,388 | #REF! |

Fertilisers Pesticides

| | | | |
|---------------|--------|-------|-------|
| North-West | 391,1 | 4,388 | #REF! |
| North-Central | 268,12 | 4,388 | #REF! |
| North-East | 394,99 | 4,388 | #REF! |
| South-East | 326,95 | 4,388 | #REF! |
| South-West | 349,68 | 4,388 | #REF! |
| South-Central | 349,39 | 4,388 | #REF! |

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