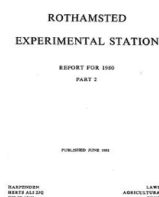


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# Rothamsted Experimental Station Report for 1980 Part 2



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## Use of Fertilisers in England and Wales, 1980

**B. M. Church**

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## Use of Fertilisers in England and Wales, 1980

B. M. CHURCH

Continuing the series of surveys done by staff of the ADAS Regional Soil Scientists in collaboration with representatives of the Fertiliser Manufacturers' Association and with Rothamsted (Church & Lewis, 1977), a sample of 1342 farms in England and Wales was surveyed during 1980. Comparative estimates of average fertiliser use per ha on tillage crops and grassland for the last 3 years are shown in Table 1.

Because of a change in the population sampled in 1980, and to improve comparability with the latest results, figures quoted for 1978 and 1979 in Table 1 differ somewhat from those in the previous paper (Church, 1980a); this will be discussed further in the full report on the 1980 survey which should be available shortly after this paper appears. Meanwhile, these data show a continuing increase in N use per ha crops and grass in 1980. As in the previous year, use of straight N per ha on the area in tillage cropping has increased by as much as a sixth and there has also been some increase in N applied in compound fertilisers to grassland (Table 1). Again, use of P and K per ha shows little change over the past year.

TABLE 1

*Fertiliser use on tillage crops and grassland (kg ha<sup>-1</sup>), 1978-80*

|                               | Tillage crops |      |      | Grassland |      |      | All crops and grass |      |      |
|-------------------------------|---------------|------|------|-----------|------|------|---------------------|------|------|
|                               | 1978          | 1979 | 1980 | 1978      | 1979 | 1980 | 1978                | 1979 | 1980 |
| N Straight                    | 53            | 66   | 77   | 67        | 71   | 69   | 60                  | 69   | 73   |
| Compound                      | 51            | 46   | 44   | 45        | 45   | 50   | 47                  | 45   | 47   |
| Total                         | 104           | 112  | 121  | 112       | 116  | 119  | 107                 | 114  | 120  |
| P <sub>2</sub> O <sub>5</sub> | 51            | 49   | 49   | 26        | 25   | 27   | 37                  | 36   | 37   |
| K <sub>2</sub> O              | 56            | 53   | 54   | 24        | 26   | 26   | 39                  | 38   | 40   |

TABLE 2

*Fertiliser use on winter wheat and spring barley (kg ha<sup>-1</sup>), 1978-80*

|                               | Winter wheat |      |      | Spring barley |      |      |
|-------------------------------|--------------|------|------|---------------|------|------|
|                               | 1978         | 1979 | 1980 | 1978          | 1979 | 1980 |
| N Straight                    | 106          | 117  | 126  | 21            | 26   | 24   |
| Compound                      | 19           | 18   | 19   | 62            | 62   | 63   |
| Total                         | 125          | 135  | 145  | 83            | 88   | 87   |
| P <sub>2</sub> O <sub>5</sub> | 44           | 46   | 46   | 38            | 37   | 37   |
| K <sub>2</sub> O              | 37           | 38   | 39   | 39            | 39   | 40   |

Much of the increased use of straight N on tillage crops is due to winter cereals. The proportion of the total cereal area winter sown is estimated at 64% in 1980 compared with 59% in 1979. The average total N dressing on winter wheat was 145 kg ha<sup>-1</sup> in 1980 (126 kg ha<sup>-1</sup> as straight N and the rest as compound fertiliser in the seedbed) compared with 135 kg ha<sup>-1</sup> in 1979 (Table 2). About 40% of this crop now gets two or more top dressings (Church, 1980b).

## ROTHAMSTED REPORT FOR 1980, PART 2

Estimates of the average use of fertilisers on individual farm crops and of the proportions of crop area getting different amounts of nutrients in 1980 are given in Tables 3–6. Table 7 shows the proportion of the grassland area which is utilised in different ways, and average fertiliser applications for each pattern of utilisation. Table 8 shows the proportions of grassland, classified by utilisation, which got different amounts of N per ha during 1980 and demonstrates very clearly the association between grassland utilisation and N use per ha.

### REFERENCES

- CHURCH, B. M. & LEWIS, D. A. (1977) Fertiliser use on farm crops in England and Wales: Information from the Survey of Fertiliser Practice 1942–1976. *Outlook on Agriculture* 9, 186–193.
- CHURCH, B. M. (1980a) Use of fertilisers in England and Wales, 1979. *Rothamsted Experimental Station. Report for 1979*, Part 2, 105–110.
- CHURCH, B. M. (1980b) Fertiliser practice on cereals, 1978 (SS/C/711), 10 pp.

USE OF FERTILISERS IN ENGLAND AND WALES, 1980

TABLE 3  
Fertiliser use in England and Wales, 1980

| Fields                     | Hectares ('000) | Overall* (kg ha <sup>-1</sup> ) |                               |                  | % Area receiving |    |    |     | Actual* (kg ha <sup>-1</sup> ) |                               |                  |
|----------------------------|-----------------|---------------------------------|-------------------------------|------------------|------------------|----|----|-----|--------------------------------|-------------------------------|------------------|
|                            |                 | N                               | P <sub>2</sub> O <sub>5</sub> | K <sub>2</sub> O | N                | P  | K  | FYM | N                              | P <sub>2</sub> O <sub>5</sub> | K <sub>2</sub> O |
| Spring wheat               | 107             | 106                             | 37                            | 35               | 98               | 86 | 82 | 8   | 108                            | 43                            | 43               |
| Winter wheat               | 2326            | 145                             | 46                            | 39               | 99               | 86 | 76 | 13  | 146                            | 53                            | 51               |
| Spring barley              | 2073            | 86                              | 37                            | 40               | 98               | 95 | 94 | 22  | 88                             | 39                            | 42               |
| Winter barley              | 1262            | 129                             | 48                            | 45               | 100              | 92 | 87 | 11  | 129                            | 52                            | 51               |
| Spring oats                | 161             | 68                              | 31                            | 32               | 89               | 83 | 82 | 21  | 77                             | 37                            | 39               |
| Winter oats                | 185             | 99                              | 51                            | 44               | 97               | 92 | 86 | 13  | 101                            | 55                            | 52               |
| Early potatoes             | 77              | 171                             | 178                           | 227              | 99               | 99 | 99 | 52  | 173                            | 180                           | 229              |
| Maincrop potatoes          | 377             | 185                             | 185                           | 259              | 98               | 98 | 98 | 48  | 188                            | 188                           | 264              |
| Sugar beet                 | 457             | 137                             | 65                            | 144              | 93               | 91 | 91 | 25  | 148                            | 72                            | 158              |
| Swedes (stock)             | 77              | 55                              | 109                           | 71               | 84               | 90 | 84 | 42  | 65                             | 121                           | 85               |
| Turnips (stock)            | 70              | 65                              | 61                            | 48               | 98               | 74 | 71 | 39  | 66                             | 83                            | 67               |
| Kale and cow cabbage       | 164             | 115                             | 53                            | 54               | 94               | 90 | 87 | 53  | 122                            | 59                            | 62               |
| Rape for stockfeed         | 31              | 98                              | 84                            | 45               | 89               | 82 | 81 | 27  | 110                            | 103                           | 56               |
| Beans for stockfeed        | 103             | 6                               | 30                            | 19               | 17               | 45 | 31 | 7   | 36                             | 66                            | 63               |
| Other stockfeed            | 89              | 86                              | 62                            | 54               | 96               | 91 | 90 | 44  | 89                             | 68                            | 60               |
| Peas for human consumption | 178             | 6                               | 24                            | 28               | 28               | 51 | 51 | 5   | 22                             | 46                            | 54               |
| Runner and French beans    | 30              | 58                              | 55                            | 42               | 44               | 72 | 55 | 9   | 131                            | 77                            | 76               |
| Brussels sprouts           | 28              | 228                             | 110                           | 156              | 86               | 86 | 86 | 21  | 266                            | 128                           | 181              |
| Cabbage                    | 53              | 125                             | 42                            | 75               | 83               | 59 | 61 | 18  | 150                            | 71                            | 124              |
| Cauliflower                | 69              | 128                             | 45                            | 112              | 66               | 65 | 65 | 20  | 193                            | 69                            | 172              |
| Onions                     | 38              | 130                             | 87                            | 121              | 89               | 72 | 72 | 11  | 146                            | 120                           | 167              |
| Small fruit                | 74              | 65                              | 30                            | 67               | 75               | 50 | 72 | 25  | 87                             | 60                            | 93               |
| Top fruit                  | 107             | 106                             | 9                             | 30               | 78               | 33 | 41 | 7   | 137                            | 27                            | 73               |
| Oilseed rape               | 154             | 254                             | 51                            | 38               | 99               | 92 | 67 | 4   | 256                            | 55                            | 57               |
| All tillage                | 8767            | 121                             | 49                            | 54               | 95               | 88 | 83 | 18  | 127                            | 56                            | 65               |
| 1 year leys                | 23              | 152                             | 40                            | 44               | 98               | 58 | 55 | 20  | 155                            | 69                            | 80               |
| 2-7 year leys              | 2967            | 167                             | 35                            | 37               | 93               | 70 | 70 | 43  | 178                            | 50                            | 53               |
| Permanent grass            | 3395            | 93                              | 21                            | 20               | 73               | 52 | 51 | 36  | 127                            | 41                            | 39               |
| All crops and grass        | 15152           | 120                             | 37                            | 40               | 87               | 73 | 70 | 28  | 138                            | 51                            | 57               |

\* The average application of any fertiliser component over all fields including those receiving none is termed 'overall'. The average excluding fields with none of the component is termed 'actual'.



ROTHAMSTED REPORT FOR 1980, PART 2

TABLE 4

Percentages of crop area getting different amounts of N ( $\text{kg ha}^{-1}$ )

| Fields                     | 0     | <25 | 25- | 50- | 75- | 100- | 125- | 150- | 200- | 250- | 300- | 400+ |
|----------------------------|-------|-----|-----|-----|-----|------|------|------|------|------|------|------|
| Spring wheat               | 2     | 2   | 2   | 10  | 39  | 14   | 12   | 18   | 1    | 0    | 0    | 0    |
| Winter wheat               | 1     | 1   | 1   | 3   | 7   | 12   | 24   | 46   | 5    | 1    | 0    | 0    |
| Spring barley              | 2     | 1   | 6   | 19  | 38  | 22   | 7    | 4    | 0    | 0    | 0    | 0    |
| Winter barley              | 0     | 0   | 1   | 3   | 12  | 24   | 32   | 25   | 1    | 1    | 0    | 0    |
| Spring oats                | 11    | 0   | 10  | 30  | 34  | 8    | 4    | 2    | 0    | 0    | 0    | 0    |
| Winter oats                | 3     | 1   | 10  | 18  | 19  | 22   | 10   | 14   | 3    | 0    | 0    | 0    |
| Early potatoes             | 1     | 0   | 0   | 3   | 6   | 4    | 6    | 66   | 14   | 1    | 1    | 0    |
| Maincrop potatoes          | 2     | 1   | 0   | 1   | 1   | 5    | 5    | 50   | 24   | 9    | 1    | 0    |
| Sugar beet                 | 7     | 0   | 1   | 1   | 9   | 12   | 28   | 31   | 8    | 1    | 0    | 0    |
| Swedes (stock)             | 16    | 0   | 34  | 20  | 17  | 7    | 3    | 0    | 0    | 0    | 0    | 0    |
| Turnips (stock)            | 2     | 1   | 19  | 43  | 27  | 6    | 1    | 0    | 1    | 0    | 0    | 0    |
| Kale and cow cabbage       | 6     | 0   | 4   | 11  | 20  | 21   | 15   | 12   | 4    | 7    | 0    | 0    |
| Rape for stockfeed         | 31    | 0   | 0   | 32  | 17  | 15   | 6    | 8    | 9    | 0    | 2    | 0    |
| Beans for stockfeed        | 83    | 8   | 3   | 6   | 0   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Other stockfeed            | 4     | 2   | 15  | 23  | 24  | 11   | 11   | 8    | 2    | 0    | 0    | 0    |
| Peas for human consumption | 178   | 22  | 3   | 1   | 1   | 1    | 0    | 0    | 0    | 0    | 0    | 0    |
| Runner and French beans    | 30    | 7   | 0   | 0   | 2   | 15   | 3    | 17   | 1    | 0    | 1    | 0    |
| Brussels sprouts           | 28    | 0   | 0   | 0   | 15  | 0    | 0    | 13   | 5    | 13   | 26   | 14   |
| Cabbage                    | 53    | 17  | 3   | 5   | 15  | 11   | 17   | 16   | 4    | 4    | 8    | 0    |
| Cauliflower                | 69    | 34  | 0   | 6   | 8   | 2    | 5    | 11   | 14   | 5    | 12   | 0    |
| Onions                     | 38    | 11  | 3   | 8   | 22  | 14   | 8    | 14   | 15   | 0    | 5    | 0    |
| Small fruit                | 74    | 25  | 19  | 18  | 8   | 2    | 3    | 2    | 3    | 8    | 0    | 0    |
| Top fruit                  | 107   | 10  | 4   | 6   | 16  | 3    | 23   | 8    | 16   | 0    | 1    | 0    |
| Oilseed rape               | 154   | 1   | 1   | 3   | 0   | 1    | 1    | 9    | 15   | 47   | 23   | 0    |
| All tillage                | 8767  | 5   | 1   | 8   | 17  | 16   | 18   | 25   | 4    | 2    | 1    | 0    |
| 1 year leys                | 23    | 2   | 0   | 29  | 15  | 0    | 5    | 13   | 21   | 12   | 2    | 0    |
| 2-7 year leys              | 2967  | 7   | 1   | 11  | 12  | 7    | 11   | 13   | 10   | 8    | 12   | 4    |
| Permanent grass            | 3395  | 27  | 0   | 16  | 12  | 5    | 9    | 8    | 4    | 3    | 4    | 4    |
| All crops and grass        | 15152 | 13  | 1   | 12  | 15  | 11   | 14   | 17   | 5    | 4    | 4    | 1    |

USE OF FERTILISERS IN ENGLAND AND WALES, 1980

TABLE 5

Percentages of crop area getting different amounts of  $P_2O_5$  ( $kg\ ha^{-1}$ )

|                            | 0     | <25 | 25- | 50- | 75- | 100- | 125- | 150- | 200- | 250- | 300- | 400+ |
|----------------------------|-------|-----|-----|-----|-----|------|------|------|------|------|------|------|
| Fields                     | 107   | 14  | 7   | 27  | 0   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spring wheat               | 2326  | 14  | 3   | 52  | 8   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Winter wheat               | 2073  | 5   | 8   | 28  | 2   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spring barley              | 1262  | 8   | 3   | 68  | 7   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Winter barley              | 161   | 17  | 11  | 33  | 7   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spring oats                | 185   | 8   | 4   | 58  | 1   | 1    | 1    | 0    | 0    | 0    | 0    | 0    |
| Winter oats                |       |     |     | 40  | 17  | 1    | 1    | 0    | 0    | 0    | 0    | 0    |
| Early potatoes             | 77    | 1   | 0   | 0   | 9   | 12   | 7    | 40   | 16   | 10   | 2    | 1    |
| Maincrop potatoes          | 377   | 2   | 1   | 1   | 3   | 3    | 5    | 53   | 23   | 6    | 3    | 0    |
| Sugar beet                 | 457   | 9   | 1   | 14  | 20  | 5    | 3    | 6    | 0    | 0    | 0    | 0    |
| Swedes (stock)             | 77    | 10  | 3   | 17  | 15  | 14   | 4    | 17   | 4    | 6    | 3    | 0    |
| Turnips (stock)            | 70    | 26  | 7   | 6   | 7   | 7    | 6    | 13   | 1    | 0    | 1    | 0    |
| Kale and cow cabbage       | 164   | 10  | 5   | 29  | 15  | 4    | 2    | 1    | 0    | 0    | 0    | 0    |
| Rape for stockfeed         | 31    | 18  | 0   | 36  | 3   | 1    | 7    | 7    | 1    | 11   | 0    | 0    |
| Beans for stockfeed        | 103   | 55  | 2   | 5   | 4   | 1    | 2    | 2    | 0    | 0    | 0    | 0    |
| Other stockfeed            | 89    | 9   | 14  | 29  | 18  | 4    | 2    | 3    | 3    | 3    | 0    | 0    |
| Peas for human consumption | 178   | 49  | 7   | 17  | 4   | 1    | 0    | 0    | 0    | 0    | 0    | 0    |
| Runner and French beans    | 30    | 28  | 0   | 0   | 44  | 5    | 0    | 1    | 0    | 0    | 0    | 0    |
| Brussels sprouts           | 28    | 14  | 0   | 2   | 37  | 8    | 10   | 1    | 23   | 0    | 0    | 0    |
| Cabbage                    | 53    | 41  | 0   | 7   | 15  | 4    | 4    | 0    | 0    | 0    | 0    | 0    |
| Cauliflower                | 69    | 35  | 1   | 10  | 32  | 10   | 0    | 0    | 0    | 0    | 0    | 0    |
| Onions                     | 38    | 28  | 0   | 20  | 12  | 1    | 11   | 14   | 11   | 0    | 0    | 0    |
| Small fruit                | 74    | 50  | 9   | 8   | 14  | 0    | 4    | 1    | 0    | 0    | 0    | 0    |
| Top fruit                  | 107   | 67  | 24  | 3   | 3   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Oilseed rape               | 154   | 8   | 3   | 17  | 3   | 1    | 0    | 1    | 0    | 0    | 0    | 0    |
| All tillage                | 8767  | 12  | 5   | 37  | 7   | 1    | 1    | 2    | 1    | 0    | 0    | 0    |
| 1 year leys                | 23    | 42  | 1   | 16  | 19  | 0    | 2    | 2    | 0    | 0    | 0    | 0    |
| 2-7 year leys              | 2967  | 30  | 15  | 30  | 5   | 3    | 1    | 2    | 1    | 0    | 0    | 0    |
| Permanent grass            | 3395  | 48  | 16  | 24  | 2   | 1    | 1    | 1    | 0    | 0    | 0    | 0    |
| All crops and grass        | 15152 | 27  | 10  | 31  | 5   | 1    | 1    | 2    | 1    | 0    | 0    | 0    |

ROTHAMSTED REPORT FOR 1980, PART 2

TABLE 6

Percentages of crop area getting different amounts of  $K_2O$  ( $kg\ ha^{-1}$ )

| Fields                     | 0     | <25 | 25- | 50- | 75- | 100- | 125- | 150- | 200- | 250- | 300- | 400+ |
|----------------------------|-------|-----|-----|-----|-----|------|------|------|------|------|------|------|
| Spring wheat               | 18    | 4   | 54  | 24  | 0   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Winter wheat               | 24    | 4   | 34  | 31  | 7   | 1    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spring barley              | 6     | 5   | 63  | 24  | 3   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Winter barley              | 13    | 3   | 37  | 41  | 7   | 1    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spring oats                | 18    | 6   | 63  | 12  | 2   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Winter oats                | 14    | 2   | 34  | 37  | 13  | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Early potatoes             | 1     | 0   | 0   | 2   | 1   | 4    | 9    | 20   | 15   | 29   | 18   | 1    |
| Maincrop potatoes          | 2     | 0   | 1   | 0   | 0   | 1    | 1    | 7    | 18   | 40   | 29   | 0    |
| Sugar beet                 | 9     | 0   | 2   | 7   | 8   | 16   | 8    | 21   | 20   | 7    | 1    | 0    |
| Swedes (stock)             | 16    | 0   | 17  | 21  | 20  | 12   | 6    | 7    | 2    | 0    | 0    | 0    |
| Turnips (stock)            | 70    | 5   | 24  | 7   | 24  | 8    | 1    | 0    | 1    | 0    | 0    | 0    |
| Kale and cow cabbage       | 164   | 3   | 29  | 35  | 8   | 7    | 3    | 2    | 1    | 0    | 0    | 0    |
| Rape for stockfeed         | 31    | 3   | 28  | 38  | 9   | 0    | 4    | 0    | 0    | 0    | 0    | 0    |
| Beans for stockfeed        | 103   | 0   | 7   | 17  | 3   | 1    | 2    | 0    | 0    | 0    | 0    | 0    |
| Other stockfeed            | 89    | 9   | 35  | 21  | 14  | 5    | 2    | 0    | 2    | 1    | 0    | 0    |
| Peas for human consumption | 178   | 2   | 18  | 22  | 8   | 1    | 2    | 0    | 0    | 0    | 0    | 0    |
| Runner and French beans    | 30    | 0   | 14  | 7   | 26  | 3    | 1    | 2    | 1    | 0    | 0    | 0    |
| Brussels sprouts           | 28    | 0   | 0   | 0   | 2   | 11   | 14   | 18   | 30   | 1    | 8    | 0    |
| Cabbage                    | 53    | 0   | 1   | 11  | 9   | 5    | 13   | 18   | 3    | 1    | 0    | 0    |
| Cauliflower                | 69    | 1   | 3   | 1   | 3   | 10   | 6    | 13   | 24   | 0    | 4    | 0    |
| Onions                     | 38    | 0   | 0   | 1   | 0   | 3    | 29   | 19   | 16   | 0    | 4    | 0    |
| Small fruit                | 74    | 0   | 16  | 10  | 18  | 7    | 7    | 14   | 1    | 0    | 0    | 0    |
| Top fruit                  | 107   | 0   | 7   | 21  | 9   | 0    | 2    | 3    | 0    | 0    | 0    | 0    |
| Oilseed rape               | 154   | 5   | 12  | 46  | 2   | 2    | 1    | 0    | 0    | 0    | 0    | 0    |
| All tillage                | 8767  | 3   | 37  | 28  | 6   | 2    | 1    | 2    | 2    | 2    | 1    | 0    |
| 1 year leys                | 23    | 1   | 8   | 9   | 23  | 8    | 6    | 0    | 0    | 0    | 0    | 0    |
| 2-7 year leys              | 2967  | 30  | 28  | 15  | 8   | 4    | 2    | 2    | 0    | 0    | 0    | 0    |
| Permanent grass            | 3395  | 49  | 13  | 26  | 7   | 1    | 0    | 0    | 0    | 0    | 0    | 0    |
| All crops and grass        | 15152 | 30  | 8   | 32  | 18  | 2    | 1    | 1    | 1    | 1    | 0    | 0    |

USE OF FERTILISERS IN ENGLAND AND WALES, 1980

TABLE 7  
Fertiliser use on grassland classified by utilisation

|                         | Fields | % Grassland area |                               |                  | Overall* (kg ha <sup>-1</sup> ) |    |    | % Area receiving |     |                               | Actual* (kg ha <sup>-1</sup> ) |  |  |
|-------------------------|--------|------------------|-------------------------------|------------------|---------------------------------|----|----|------------------|-----|-------------------------------|--------------------------------|--|--|
|                         |        | N                | P <sub>2</sub> O <sub>5</sub> | K <sub>2</sub> O | N                               | P  | K  | FYM              | N   | P <sub>2</sub> O <sub>5</sub> | K <sub>2</sub> O               |  |  |
| Paddock grazed          | 108    | 2                | 212                           | 20               | 89                              | 47 | 48 | 34               | 238 | 42                            | 42                             |  |  |
| Paddock grazed and mown | 57     | 1                | 201                           | 38               | 100                             | 61 | 62 | 62               | 201 | 65                            | 62                             |  |  |
| Strip grazed            | 193    | 3                | 213                           | 27               | 96                              | 62 | 61 | 40               | 221 | 44                            | 46                             |  |  |
| Strip grazed and mown   | 166    | 3                | 171                           | 43               | 97                              | 74 | 79 | 81               | 176 | 39                            | 55                             |  |  |
| Set stocked             | 520    | 9                | 179                           | 26               | 90                              | 55 | 56 | 33               | 199 | 47                            | 45                             |  |  |
| Set stocked and mown    | 176    | 3                | 195                           | 48               | 96                              | 78 | 80 | 54               | 204 | 47                            | 60                             |  |  |
| Cut for seed            | 44     | 0                | 181                           | 55               | 100                             | 96 | 93 | 5                | 181 | 57                            | 55                             |  |  |
| Cut for silage          | 983    | 14               | 200                           | 39               | 98                              | 81 | 84 | 63               | 203 | 48                            | 66                             |  |  |
| Cut for hay             | 131    | 1                | 65                            | 16               | 73                              | 34 | 32 | 20               | 89  | 46                            | 47                             |  |  |
| Cut for hay and grazed† | 1336   | 18               | 88                            | 26               | 88                              | 62 | 61 | 51               | 100 | 42                            | 39                             |  |  |
| Other grazings          | 2563   | 44               | 75                            | 22               | 66                              | 50 | 46 | 23               | 114 | 43                            | 33                             |  |  |
| Not stated/not used     | 122    | 2                | 80                            | 17               | 64                              | 50 | 40 | 23               | 124 | 68                            | 43                             |  |  |
| All grass               | 6413   |                  | 119                           | 27               | 80                              | 59 | 58 | 38               | 148 | 45                            | 45                             |  |  |

\* The average application of any fertiliser component over all fields including those receiving none is termed 'overall'. The average excluding fields with none of the component is termed 'actual'.

† Excluding fields intensively grazed as in the first 6 categories above.



ROTHAMSTED REPORT FOR 1980, PART 2

TABLE 8  
Percentages of grassland area by utilisation getting different amounts of N ( $\text{kg ha}^{-1}$ )

|                         | Fields | 0  | <25 | 25- | 50- | 75- | 100- | 125- | 150- | 200- | 250- | 300- | 400+ |
|-------------------------|--------|----|-----|-----|-----|-----|------|------|------|------|------|------|------|
| Paddock grazed          | 108    | 11 | 0   | 4   | 6   | 15  | 2    | 3    | 6    | 16   | 8    | 23   | 7    |
| Paddock grazed and mown | 57     | 0  | 0   | 0   | 6   | 13  | 16   | 11   | 8    | 19   | 3    | 21   | 3    |
| Strip grazed            | 193    | 4  | 0   | 4   | 5   | 6   | 6    | 11   | 16   | 12   | 10   | 18   | 8    |
| Strip grazed and mown   | 166    | 3  | 1   | 5   | 9   | 8   | 9    | 14   | 20   | 7    | 13   | 10   | 3    |
| Set stocked             | 520    | 10 | 0   | 3   | 14  | 11  | 3    | 9    | 11   | 8    | 8    | 17   | 6    |
| Set stocked and mown    | 176    | 4  | 0   | 1   | 9   | 9   | 3    | 17   | 15   | 6    | 18   | 14   | 4    |
| Cut for seed            | 44     | 0  | 0   | 0   | 0   | 1   | 17   | 26   | 23   | 11   | 13   | 9    | 0    |
| Cut for silage          | 983    | 2  | 0   | 1   | 6   | 8   | 7    | 12   | 19   | 15   | 10   | 16   | 4    |
| Cut for hay             | 131    | 27 | 0   | 8   | 21  | 24  | 5    | 7    | 5    | 2    | 0    | 0    | 0    |
| Cut for hay and grazed† | 1336   | 12 | 0   | 8   | 27  | 19  | 9    | 10   | 8    | 2    | 2    | 2    | 0    |
| Other grazings          | 2563   | 34 | 0   | 11  | 14  | 12  | 5    | 9    | 7    | 2    | 3    | 3    | 0    |
| Not stated/not used     | 122    | 36 | 7   | 3   | 9   | 14  | 8    | 4    | 6    | 11   | 0    | 3    | 0    |
| All grass               | 6413   | 20 | 0   | 7   | 15  | 12  | 6    | 10   | 10   | 6    | 5    | 7    | 2    |

† Excluding fields intensively grazed as in the first 6 categories above.