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MINISTRY OF AGRICULTURE, FISHERIES AND FOOD
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From the Minister

The Rt Hon Patrick Jenkin MP
Secretary of State for the Environment
2 Marsham Street
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5 December 1984

will request if required.

TAKING LAND OUT OF ARABLE PRODUCTION

You will remember that in his letter of 6 June Nicholas Ridley suggested there was a case for an initiative within the European Community for a "set-aside" scheme on the US model, with the aim both of preserving the countryside and of reducing agricultural surpluses. In my letter of 2 July I promised to write further about this.

--- I enclose a note on the subject. This concludes that a set-aside scheme on US lines would neither be a cost-effective way of dealing with EC surpluses of arable crops nor contribute to improving the countryside; and that measures designed for environmental purposes would have to concentrate on specific areas.

I believe these arguments are conclusive. But if you would like officials of interested Departments to consider them further, this could easily be arranged.

I am copying this letter to the Prime Minister, Cabinet colleagues, the Chief Whip and Sir Robert Armstrong.

MICHAEL JOPLING

MEANS OF REDUCING THE AREA OF ARABLE LAND

1. It has been suggested that the UK should take the initiative in urging the adoption by the European Community of a "set-aside" policy to take land out of arable production, on the lines operated by the US, with the twin aims of improving the countryside and reducing arable surpluses.

2. Annex 1 shows changes in the UK agricultural area over the last ten years. The total area has, of course, been reduced by development. The reduction has fallen both on the arable area and on the area of permanent grass/rough grazings. Within the arable area, the land under tillage has increased and that under temporary grass has fallen.

The US Set-Aside Arrangements

3. These are described in detail in Annex 2. In brief, the support systems operated in the US for grain and certain other arable crops tend to lead to production in excess of outlets and the consequent acquisition of large stocks by the responsible Government agency. When this happens, the Government's normal reaction has been to offer inducements to farmers to leave a portion of their land unplanted to any crop (it must however be planted to "conservation cover" to protect it against erosion). The schemes are voluntary, but non-participating farmers are not eligible for support for their output. Whether, and if so what, inducements should be offered and how much land must be set aside to qualify for them are decided for each crop in the light of the stock position and the forecast balance between production and utilisation.

4. The set-aside arrangements are not, of course, designed to improve the rural environment; and it is difficult to imagine how they could be held to do so, given that they are only intended to operate in times of surplus; that the area set aside varies from year to year and from farm to farm; and that, even if the programmes were operated on a constant basis, the actual land involved on any given farm would be unlikely to remain constant. Set-aside measures with an essentially environmental objective would above all need long-term, and quite precise, commitments from the farmers concerned.

5. As Annex 2 demonstrates, the reductions in production resulting from the arrangements have been substantial. But these reductions are not proportionate to the area of land taken out of production. The US authorities reckon that a relationship of 70% is the best that can be achieved. The main reasons for this are the following. First, non-participating farmers tend to plant more, partly in the hope of higher market prices and partly to increase the size of their base for future programmes. Second, participating farmers tend to set aside their least productive land and to devote extra care, and possibly extra inputs, to the rest. Third, resting the land improves yields in the following year (in the drier crop areas of the US, it is in any case the practice to leave arable land fallow every other year or one year in three to build up moisture: set-aside enhances this effect).

6. Although set-aside programmes have been in use in the US, with some gaps, ever since the 1930s, there has been growing criticism of them recently from economists and commodity analysts, on the grounds that they are very expensive relative to the results obtained and economically unsound. More generally, there is appreciable public criticism of the principle of paying farmers for doing nothing.

Applicability of US Scheme in the European Community

7. The possibility of applying a scheme of the US type in the EC, and in the UK in particular, needs to be considered from the economic and from the administrative points of view. Grain, by far the main arable crop, is the most obvious example to take.

(a) Economic Considerations

8. Two alternatives can be considered: either the land set aside from grain production must be left unused; or some specified alternative uses are permitted. Under the first hypothesis, the inducement offered to the farmer would have to be equal to his anticipated return from a crop of grain, minus the costs he is saving by not planting that crop. It is estimated that, to achieve a significant response, the inducement would have to be about half the gross value of the crop. This could be a conservative estimate. It is significantly lower than the "payments" offered by the US Administration under its "PIK programme" (see Annex 2), which were pitched as high as 80% to 95% of normal yields in order to attract

a large proportion of the total grain area into the scheme. It has been calculated on the basis of below-average grain yields (because it is the more marginal producers who would be attracted by the scheme) and on the assumption that labour and machinery costs (which on many farms would be fixed costs) could be saved by not growing the crop.

9. From the viewpoint of containing expenditure under the Common Agricultural Policy, the cost of the inducement would have to be measured against (a) other means of restraining production or (b) not restraining production and exporting the surplus to the world market. Point (a) is considered below. For (b) the cost is the subsidy required to effect the export. The rate needed varies, of course, with the world price. Because the world price is largely determined by the US loan rate (see Annex 2, paragraph 2), the sharp rise in the dollar recently reduced the EC export subsidy on wheat almost to nil: currently it is about 10% of the market price for wheat and nearly 20% for barley. But, even if we made the generous assumption that export subsidies in the long run might be one-third of the EC market price, this would still make a voluntary set-aside scheme significantly more expensive to the EC budget, as a means of dealing with surplus grain, than the present policy of export onto the world market. In assessing the cost, account would have to be taken of the probability that, for the reasons set out in paragraph 5, production would not fall proportionately to the amount of land set aside.

10. A further cost would probably arise from the fact that, due to yield fluctuations caused by the weather, it would be impossible to devise a system which would ensure that a given production target (eg an amount equal to consumption) was achieved. There would accordingly be pressure for an EC set-aside programme to be accompanied by a policy of holding a significantly higher level of stocks than hitherto, in order to avoid having to import to meet consumption needs. The cost of acquiring stocks would fall on national Exchequers and of holding them would fall on the EC budget.

11. If, alternatively, a farmer was permitted to use the land for some other purpose (including grass for grazing, hay or silage), the inducement required would be less. It would need to be the difference in the net return to the farmer (receipts/value minus costs) from the crop actually produced compared with the grain

that would otherwise have been grown. But, against that, would have to be set the costs to the CAP generated by the alternative crop. These comparisons are difficult to make because of the lack of full data on costs and yields in the more marginal areas. However, calculations indicate that although the incentive needed to induce a farmer to grow a hay crop instead of grain might be relatively small - say, £50 to £100 per hectare - that crop would be likely to displace, in animal feed, an amount of grain not much different from that which would otherwise have been grown on the land. There would thus be no significant saving in CAP costs to set against the additional expenditure. If, instead of feeding hay in place of grain, the farmer used it to rear additional livestock, the latter would equally generate increased CAP expenditure in the livestock sector. Financially, therefore, this alternative too is unattractive.

12. This analysis suggests that the UK could hardly advocate voluntary set-aside as a cost-effective method of managing the CAP. Its justification would have to rest very heavily on the supposed environmental benefits. For the reasons set out in paragraph 4, it is difficult to see how a convincing justification could be given.

13. It may be wondered why, given the analysis in paragraphs 8 to 11, the US resorts to set-aside. The answer lies in the completely different magnitude of the surplus problem. US carryover stocks of wheat and of feed grain at the end of the 1982/83 crop year were equal to 55% and 40% respectively of production; and, even more strikingly, to about 40% and 100% respectively of total world trade. There was thus no prospect of the US, whatever export policy it adopted, disposing of these stocks on the world market: cuts in production were the only possible remedy. By contrast, although the EC has increased its production and exports in recent years, it is nevertheless a relatively marginal supplier to the world market and has no large accumulated stocks. It is in the milk sector where the EC position has been comparable to - indeed, worse than - that of the US before the grain area cuts of 1983: and the remedy adopted by the EC has been that of compulsory production quotas.

(b) Administrative Considerations

14. The administrative problems in operating a set-aside scheme

would, of course, depend on the response from farmers. If this was appreciable - as would be necessary if the objective were to eliminate or substantially reduce the EC surplus - they could be insuperable. In general, support systems under the CAP do not operate at the individual farm level. To check that each participating farmer restricted his grain area to the prescribed level and had left the appropriate area of land unplanted or had planted it only to approved crops would be a major one and we could have little confidence that those EC countries with large farming populations (Greece and Italy) could possibly do it.

15. Moreover, a major problem would arise in establishing each participating farmer's base acreage. Because of the nature and long history of the support programmes in the US, there is a record of crop areas and yields for each farm. In the UK our only records are from the annual farm census, which are intended solely for statistical purposes. It may be doubted whether usable records exist in any of the other EC countries. The only solution would be to use as the base the area sown in the immediately preceding year, in order to check that the area declared by the applicant was not inflated. Even then there is the fact that the scheme would only be introduced after long discussion in the Council of Ministers, and farmers would know in advance of its likely introduction. Those interested in participating might in many cases be able to increase their grain area in the base year in order to get paid for reducing it in the following year. There would then be a double cost for no result, because the EC budget would pay both for the extra grain produced in the base year and the subsequent reduction.

Long Term Set-Aside for Environmental Ends

16. If the environmental objective is to take land out of arable production, then the farmer would need to enter into a long term commitment to follow farming practices positively beneficial to the environment. This would be in return for a similarly long term inducement. A necessary concomitant of such an approach would be measures to discourage farmers from bringing into arable production land which was capable of sustaining economic yields from arable crops. (The conversion of grazing marsh to cereal production in the Norfolk Broads, which is a major public issue at the moment, is an obvious case in point.) But while needing to be long term, such measures would not need to be open to the farming industry

as a whole. In the interests of environmental cost-effectiveness, it would be necessary to define and designate set-aside areas of particular environmental importance to which the scheme would be confined. Otherwise the greater part of the available support would be scattered piecemeal in areas - such as large tracts of Eastern England - where the benefit to the environment was negligible.

17. In environmentally sensitive areas it would be necessary to use an approach which offered financial incentives for two broad categories of farmers. On the one hand, it would seek to encourage those with arable crops to convert to non-arable farming systems. On the other hand, in order to ensure that it served a useful environmental purpose, overall, in the areas concerned, it would also need to offer inducements to those contemplating a switch into arable farming. The objective in the latter case would be to encourage them to stay out of arable production and adhere to appropriate livestock farming systems. Thus, although for the countryside as a whole, a set-aside approach could only achieve substantial conservation gains at disproportionate cost, it might be justified if its application were restricted to specific areas selected for their environmental qualities. It could thereby make some contribution towards constraining arable production, but because of the limited circumstances in which it would be appropriate it could not be expected in itself to correct a major disequilibrium in the arable sector generally. There is no reason to suppose however that these long term inducements would be materially less costly than the annual arrangements considered above.

18. No voluntary programme for persuading farmers to cut back on arable production in order to enhance the environment would be complete, however, without an advisory and promotional effort aimed at exploiting farmers' sympathy for conservation. Through the various advisory services and specialist agencies, perhaps in particular through the medium of the Farming and Wildlife Advisory Groups, farmers could be actively encouraged, on a scale well in excess of the resources currently committed, to set-aside parts of their farms to provide extra wildlife habitats, to improve the visual impact on the landscape, or to refrain from extending the margin of arable cultivation. For the countryside at large this purely voluntary approach probably offers much better value for money in environmental terms than the orthodox type of set-aside schemes with their associated financial inducements.

Compulsory Set-Aside

19. The costs of inducement - although not the administrative costs - could, of course, be avoided by a compulsory system. This would involve setting a limit either on the total arable area of each farm or on the area that could be sown to particular crops such as grain. In theory there could also be restrictions on what the remaining area of the farm could be used for. Such a system would, of course, have to apply in equal measure across the whole of the EC. It would be totally unacceptable to our farmers for there to be any discrimination.

20. Given the very strong criticism of the recently introduced quotas on milk production, the Government could not lightly advocate extending the principle to another large area of agricultural output, even if it were practicable to do so. The major objections to quota systems, other than practicality, are the following:

(1) They may lead to pressure, from some quarters within the EC, for higher support prices than would otherwise be the case on the argument that, if the danger of exacerbating the surplus has been removed, more attention should be paid to maintaining farmers' incomes.

(2) They make for inefficient use of resources, by freezing the pattern of production regardless of relative efficiency. Making quotas saleable mitigates this: even so, the purchase price is a tax on efficiency.

(3) They give rise to demands for exemptions or special treatment for particular classes of farmers. If granted, these exemptions will almost inevitably be unfair to the UK, since we will have fewer farmers in the categories concerned. For example, a likely demand is exemption for small farmers: the average cereals area in the UK is at least four times as large as in other EC Member States. Another likely claim would be exemption for farmers in "less favoured" (ie more marginal) areas: but this would be directly contrary to the supposed environmental advantages of limiting arable area.

(4) They raise difficult issues for decision, eg on what

basis to assign quotas, whether to provide for "hardship" cases, whether they attach to the land or the landowner or the farmer, and whether to make them saleable or transferable in some other way.

(5) For practical reasons, quotas for arable production - or at least grain production - could not be set other than on an area basis. But due to rising yields, this would mean a steady increase in production unless the quotas were progressively cut. Virtually the whole increase in EC cereals production over the last 10-15 years has come from increased yields, not from increased area.

21. As several Member States have acknowledged, the administrative problems of enforcing a quota system for cereals in the EC as a whole seem insuperable. Quotas for milk and for sugar beet are possible because there is a point (the dairy and the sugar factory) through which all or nearly all output has to pass: even so, it remains to be seen whether the milk quotas are properly enforced. But there is nothing comparable for a product such as cereals, and quotas would have to be applied and checked on a farm by farm basis. The problems already described in paragraph 14 above in relation to voluntary set-aside schemes would be enormously increased, in so far as the coverage of quotas would be 100%. In the US, even in 1983 when the most ambitious set-aside programme so far devised was in operation, probably well under one million farmers participated; and yet the total number of employees in the US Department of Agriculture is about 130,000 and they have some 2,700 local offices. Even in the UK with less than 100,000 cereal farms, quotas could not be operated without a very large increase in manpower. In the EC as a whole, the latest available figures (1975) recorded some 3.5 million farms producing cereals in the then nine Member States, of which about 1.5 million were in Italy. The only major product where support under the CAP at present involves checking the production of individual growers is olive oil, of which Italy is the major producer. But the arrangements operated by the Italian Government are notoriously unsatisfactory, with evidence of unjustified payments on a very large scale. Italy has been attempting for many years to carry out a thorough survey of her olive oil producers, but the target date for completion has steadily receded into the distance. There are about one and a half times as many Italian cereal producers as olive oil producers. In the

Ministry's view, a quota system for cereals production, even if desirable (which it probably is not), would have to be ruled out on grounds of practicality.

Action through Economic Pressure

22. The Government's approach to the problem of agricultural surpluses generated by the CAP, particularly in the cereals sector, has been to argue for a restrictive policy on price levels. Our success has, of course, been less than we hoped for. Even so, at the last three annual farm price negotiations, the price increase for cereals has been less than for other commodities, culminating for the first time in a reduction in prices measured in ECU - 1% off the intervention price and 4% off the bread wheat reference price - for 1984/85; on top of this a delay in payment for grain sold into intervention amounts to a further cut in support of 3-4%. A system of production targets has been adopted, exceeding which leads to lower support prices in the following season. Due to these curbs on support combined with the strength of the dollar, EC market prices for wheat have, as noted above, recently been almost as low as world prices.

23. Reducing support prices has three effects: it restrains production, promotes consumption, and reduces the unit cost of surplus disposal. In the Ministry's view there is no evidence for the claim, sometimes made, that farmers react to a price squeeze by increasing output. For any farming enterprise there are marginal producers who will be induced to switch by price pressure. What degree of restraint on cereals prices would reduce the grain area to the extent needed to offset the upward trend in yields cannot be calculated in isolation: it depends on the attractiveness of alternative lines of production. On the consumption side there is scope for increasing usage of cereals in animal feed. Lower prices would not only increase the attractiveness of grain relative to other feed ingredients but also, by working through into the end price of livestock products, lead to increased demand for these products and hence for the feed required to produce them.

24. Lower support prices are also a way of reducing or containing the area of land under arable production, assuming that this is thought desirable. Reducing cereals support prices will obviously inhibit expansion onto land which is only marginally suitable

for cereals production, either because of low yields or because of the investment needed before crops can be grown; and if the reduction in price were sufficient, there can be no doubt that some marginal land would revert to grass. Since it is presumably in some such marginal areas where the expansion of arable production is regarded as specially damaging from the environmental point of view, a severe policy on support price levels - if we can achieve it - will be far more advantageous in this respect than the sort of response that might be expected to a voluntary set-aside scheme.

Summary and Conclusions

25. This paper can be summarised as follows:

(1) There are three ways of affecting the level of output of particular agricultural products: (a) via the level of return to the producer, through adjustments to the support mechanism; (b) by compulsory quotas, production above which is either forbidden or made unattractive through a price penalty; (c) through financial inducements offered to individual farmers, to restrict their output of particular products or to convert from one product to another (eg milk to beef). Where (b) or (c) involves reducing the area which a farmer may plant to a given arable crop, it would be possible to restrict the uses to which the area not planted to that crop may be put.

(2) Method (a) is preferable from all points of view (expenditure, consumers' interests, ease of administration) except for its effect on farmers' incomes. For this reason it has been difficult to pursue within the European Community, and the solution finally adopted to reduce the milk surplus has been method (b). But for other surplus (or otherwise expensive) commodities, tougher action than hitherto was taken at the 1984 farm price negotiations and mechanisms are in place to link future support prices to levels of output.

(3) Compulsory quotas are unattractive for numerous reasons (they remove restraint on price levels, make for inefficiencies and lead to demands for exemptions which would disbenefit the

UK). They involve difficult decisions on equity and, as the milk quotas demonstrate, stir up great controversy. They are in all cases difficult to administer, and for some products (cereals) would seem utterly impracticable, at least on an EC-wide basis. It remains to be seen whether even the milk quotas are properly enforced throughout the EC.

(4) Method (c) is expensive. As a means of reducing or removing the EC cereals surplus, "set-aside" is financially very unattractive: the cure is worse than the disease. The administrative problems are the same as for (b), but reduced to the extent that only a proportion of farmers would be involved.

(5) To achieve cost-effective environmental benefits, set-aside arrangements of the kind envisaged by the UK's initiative on the EC structural directives would need to be restricted to selected environmentally sensitive areas. These are however unlikely to be of a scale sufficient to correct a major disequilibrium in the arable sector generally.

(6) Holding down the level of support for arable crops will deter the ploughing up of grassland which is at present only marginally suitable for these crops: and, if pursued rigorously enough, would cause such marginal land to revert to grass.

Ministry of Agriculture, Fisheries & Food
December 1984

UK AGRICULTURAL AREA

(thousand hectares)

	1972-74 average	1984 (provisional)	% change
Cereals	3770	4053	+7.5
Potatoes	217	199	-8.3
Sugar beet	193	200	+3.6
Oilseed rape	15	269	+1693.0
Horticultural crops	282	218	-22.7
Other crops and fallow	373	267	-28.4
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Total tillage area	4850	5206	+7.3
Temporary grass*	2342	1806	-22.9
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Total arable area	7193	7012	-2.5
Permanent grass# and rough grazings	11594	11241	-3.1
Other land ⁺	330	519	
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<u>Total</u>	19117	18772	-1.8

- * grass under 5 years old
- # grass 5 years old and over
- + figures for the two years not comparable, due to change in definition

Source

Annual Review of Agriculture
1984
June 1984 Agricultural Census

THE US SET-ASIDE ARRANGEMENTS

1. The US operates support arrangements for certain arable crops, notably cereals, rice and cotton. Since 1973 support for these crops has been based on two prices, set for each crop: the loan rate and the target price. The loan rate is a sum per unit of output which the producer may obtain as an interest-bearing loan on his crop for up to nine months from the Commodity Credit Corporation (CCC), a Government agency. The farmer redeems this loan either from the proceeds of sale or by delivering the crop itself to CCC. There is thus no incentive for a producer to sell at below the loan rate plus interest, which accordingly tends to set a floor in the market. In principle, stocks acquired by CCC can only be released back onto the market if the market price is above a given level, although departures from this rule are sometimes made. The target price can trigger deficiency payments to farmers on their production. If, as will inevitably be the case in conditions of over-supply, the average market price is below the target price during the first five months of the crop year, the rate of payment is the difference between that average (or the loan rate if higher) and the target price.
2. This system has tended to lead to over-production and the accumulation of excessive stocks by CCC. The US accounts for about half total world exports of grain: since her exports are not subsidised (although the Government makes substantial aid shipments and also assists commercial sales through export credits on favourable terms), there is nothing to create a distinction between the internal market price and the export price. Accordingly, if the loan rate is too high, US exports will become uncompetitive with those of other producers; and the volume of stocks acquired by CCC will tend to be those needed to balance the world market as a whole at the level of the loan rate. This has occurred in recent years, when the world market has tended to stagnate following rapid growth in the late '60s and '70s, and minimum US loan rates set by legislation in 1981 have risen in terms of other currencies due to the sharp appreciation of the dollar.
3. The usual US reaction to over-supply and the accumulation of stocks has been to attempt to reduce production by offering

inducements to farmers to restrict plantings of the crop concerned. Whether, and if so what, inducements should be offered is decided from year to year within the scope permitted by each Administration farm legislation. When such a scheme operates, a base area for the crop (average area planted in some prior period) is established for each farm, and the farmer is required to "set aside" a certain proportion of this area in order to qualify. The area set aside must be sown to some "conservation cover", ie something which will preserve the soil from wind or water erosion. The permitted types of cover vary from one area to another. In some cases grazing or taking a hay crop from set-aside land is permitted during certain dates.

4. The inducements to participate have taken various forms. In recent years the basic inducement has been that only farmers participating in the set-aside programme are eligible for the CCC loans and deficiency payments described in paragraph 1 above. In addition, a payment of a set sum per bushel of grain, multiplied by the average yield of the crop on that farm, may be offered on part of the set-aside area. Finally, for most arable crops last year and for wheat this year, farmers had the option of setting aside additional areas (above the basic level required to participate in the programme) in return for "payment" in the form of free grain from CCC stocks. The quantity of free grain was a set percentage of the individual farm's yield, multiplied by the area concerned. This system is known as the "payment in kind" (PIK) scheme. The motive for introducing it was to liquidate some of the very large surplus CCC stocks; and to encourage large farmers to set aside land, by circumventing the legislative requirement that total cash payments under Government support programmes must not exceed \$50,000 per farmer per year.

5. The set-aside arrangements for the 1983 wheat and maize crops, the biggest so far implemented, can accordingly be summarised as follows:

	<u>wheat</u>	<u>maize</u>
target price \$ per bushel	4.30	2.86
loan rate \$ per bushel	3.65	2.65
percent of base acreage required to be set aside to become eligible for loan and deficiency payment	20%	20%
- of which, eligible for set aside payment	5%	10%
- at rate of (\$ per bushel)*	2.70	1.50
further percent of base acreage that could be set aside under PIK scheme ^φ	10-30%	10-30%
PIK "payment", as % of yield*	95%	80%

* calculated on average yield of the farm concerned

^φ under the PIK scheme, a farmer could also offer to plant no crop at all, the "payment" in these cases being determined on a bid basis.

The reason for the PIK payment being higher for wheat than for maize was that the scheme was not announced until after winter wheat crops had been sown, so that farmers abandoning these crops needed additional compensation.

6. The effect of these arrangements on production in 1983 can be illustrated by comparison with 1981, when no set-aside operated:

	<u>1981</u>			<u>1983</u>	
	harvested area (million acres)	production (million tonnes)	amount of base area set aside (million acres)	harvested area (million acres)	production (million tonnes)
wheat	81.0	75.8	32.1	61.0	65.9
maize*	88.4	230.7	39.3	61.3	118.0

* including sorghum

As a result of the cut in output in 1983, end-season stocks of wheat are estimated to have fallen from 41.9 to 37.9 million tonnes, and of maize and sorghum from 89.9 to 19.5 million tonnes.

These diverse trends are due to the weather, which favoured wheat but adversely affected maize and sorghum.

7. For the 1984 crops, the US continued a fairly intensive set-aside programme for wheat, although with lower incentives, but a much reduced one for feed grains. The sown area and production increased by 4% and 6% respectively for wheat; and by 33% and 80% respectively for maize.

5 DEC 1984

