

# COMMISSION OF THE EUROPEAN COMMUNITIES

COM(82) 853 final

Brussels, 20 December 1982

Proposal for a  
COUNCIL DECISION  
adopting joint research programmes and programmes for  
coordinating agricultural research

---

(submitted to the Council by the Commission)

COM(82) 853 final

EXPLANATORY MEMORANDUM

1. Article 5 of Regulation (EEC) N° 1728/74 on the co-ordination of agricultural research provides that specific measures may take the form of "joint" projects or of "co-ordinated" activities and that these measures should relate to given research topics or areas.

2. The Council Decision of 22 July 1975 had provided for the implementation of four specific measures over a four year period (1975-1978) in the fields of : animal leucoses, effluents from intensive livestockrearing, beef production, and production of vegetable proteins. These specific measures had terminated on 31 December 1978.

3. The Council Decision of 30 October 1978 had provided for implementation over a five year period (1979-1983) of ten specific measures concerning respectively :

- Land use and rural development
- Mediterranean agriculture
- Agricultural waste and effluents of intensive livestock rearing
- Animal pathology
- Beef improvement
- Integrated and biological pest control
- Plant resistance to disease and environmental pressure
- Primary processing of agricultural products
- Elm disease
- Production of vegetable proteins.

These specific measures will terminate on 31 December 1983.

4. The Commission is submitting to the Council the attached proposal of further specific measures to be carried over the five-year period beginning on 1 January 1984 and ending on 31 December 1988. In preparing the attached proposal (1), the Commission based itself on :

- the need for continuing certain activities, initiated under the current Programme (1979-1983), while discontinuing others;
- the changing priorities of the common agricultural policy and of the European agriculture generally, as well as on the challenge offered to exploit the latest developments in science and technology, especially in the fields of biotechnology and genetics;
- the experience gained in the operation of the current five year Programme; and
- the advice of the Standing Committee on Agricultural Research, whose members are responsible for planning agricultural research in the Member states.

.../...

---

(1) See Annex I and II.

5. The framework programme for Community scientific and technical activities gives a particular emphasis to the policy option "promoting agricultural competitiveness", and proposes a reinforcement of the R,D & D activities in this field. These activities facilitate the attainment of the objectives of the Common Agricultural Policy and contribute towards its efficiency and effectiveness. In addition they have important indirect implications for the Community's other key policies in the fields of : regional development, environment, rural employment, competition, consumer problems, relations with the Third World and other developed regions.

The themes for the agricultural research programme presented are all part of the objective "Promotion of agricultural competition" in the frame programme. Research programmes already in existence contribute, at least in respect of certain aspects, to the realisation of this objective. In particular this is the case with the programmes on "Environment", "Raw materials-wood", "New energy sources", "Biomolecular Engineering". Further actions aiming to improve returns for agricultural products, including forestry, will be initiated in 1983 as part of the use to which the Commission budget is put. These actions will also be part, at the same time as the current agricultural research programme and the programmes referred to above, of the realisation of the aim "Promotion of agricultural competition".

In presenting this agricultural research programme, the Commission underlines, in fine and in conformity with the frame programme, that it might be allowed to propose, to the Council, a supplementary research programme for agriculture.

6. At the moment, European agriculture and the common agricultural policy in particular are being faced with increasingly complex problems originating in general economic stagnation, inflation -since 1975- rising unemployment, energy crisis, escalating production costs, declining agricultural incomes, and widening resource and income gaps in production. As a result, after twenty years of existence, and given the need for greater efficiency at a time when agriculture has to be made ready to take up the major challenge facing it, the common agricultural policy finds itself in need of adaptation to the new realities along the recently formulated guidelines (1) and European Parliament proposals. There is no doubt that agricultural research, properly integrated with the marketing and investment instrument of the common agricultural policy, has a vital role to play in any re-orientation of that policy. Moreover, the Council of Ministers (Research) has singled out agriculture as a priority item, noting that appropriations allotted in that field are very limited.

7. The experience with the current Programme (1979-1983) has demonstrated that by bringing together the considerable resources of scientific knowledge within the Community, and by stimulating research in subject areas where knowledge is needed, it is possible to enhance the medium and longer-term objectives of the common agricultural policy in terms of increased farm productivity ; to assure fair standard of living for farmers ; stable markets ; and reasonable food prices and quality. In addition, it is possible to achieve a speedier exchange of experience and standardization of methodology than otherwise would have been possible ; and to harmonize research procedures in Member states. In several instances, the Programme has provided, and is continuing to work to provide, a sound scientific base for Community legislation on, for example, production systems in relation to human health, consumer tastes, and animal welfare in so far as these are affected by modern food production systems. Scientific publications (proceedings) published as a result of numerous meetings organized annually, and of numerous contracts financed under the Programme represent a significant contribution to agricultural knowledge and practice in a number of fields.

./..

---

(1) Guidelines for European Agriculture, COM(81)608 final, 23 October 1981.

8. The experience with the current Programme has also shown that by limiting the number of identifiable research programmes and by grouping together certain activities at present carried out separately, as well as by relating more carefully different activities to the main policy themes and to one other, it should be possible to establish priorities and links among different activities more clearly than in the past, to simplify the structure of the overall Programme, and to minimize potential duplication among its different components.

9. It is proposed that the forthcoming five-year Programme should be concentrated on closely inter-linked activities, grouped around three major policy themes, concerned with :

- (a) conservation and utilization of Europe's natural resources of land, water, climate, and human resources, related to the vital question of energy in agriculture, including possibilities of direct and indirect energy savings, as well as of energy production by the agricultural sector ;
- (b) the increasingly serious structural problems of the European agriculture, concerning regional disparities in agricultural incomes and development, especially as between the Mediterranean region and the rest of the EEC countries ; and
- (c) the continuing need for improvements in efficiency of European agriculture, lower per unit costs of production, better quality of both plant and animal products to be achieved through improvements in breeding, feeding, health, and management practices as a means of support for Europe's farmers and for Europe's competitive position in world agriculture.

10. Within this general framework, the forthcoming five-year Programme should comprise the following six, related, interdependent and mutually supporting research programmes, namely :

- (a) Utilization and Conservation of Agricultural Resources
  - (1) Energy in Agriculture
  - (2) Land and Water Use and Management
- (b) Structural Problems
  - (3) Regional Problems ; with special reference to the Mediterranean agriculture
  - (4) Agro-food problems
- (c) Improvement of Plant and Animal Productivity
  - (5) Animal Husbandry
  - (6) Plant Productivity

11. In implementing these six programmes, the Commission will continue to rely on two main methods of financial intervention, i.e. :

- (i) "co-ordinated" activities which bring research people together ; and
- (ii) "common" activities, which at least in part finance research projects in Member states with Commission funds.

12. In addition to supporting "common" activities in selected laboratories and institutes by funding contracts, there is a need to exploit the results of research by financing schemes aimed at demonstrating new ideas which are potentially ripe for farmers. Consequently, while retaining the traditional method of financial support for applied research at the laboratory level, it is the intention of the Commission to introduce a new types of activity. This could take the form of field experiments and applications, especially in those areas of the Community where this new type of intervention can re-inforce

the existing mechanisms for bringing science within the reach of agricultural practice.

13. Equally, past experience suggests that in addition to the accepted pattern of "co-ordinated" activities (e.g. seminars, workshops, exchanges of scientists and publications), there is a recognized need for the Commission to increasingly avail itself of high level technical expertise and scientific advice, including socio-economic expertise. This is necessary for keeping abreast of major scientific and technological advances in various fields, for reviewing the ongoing activities, and for evaluating their cost/benefit. Consequently, it is proposed, in the future to spend a larger share of the "co-ordinated" budget for securing the necessary technical expertise.

14. Annex I sets out in respect of each of the six research programmes to be implemented in the course of the next five-year Programme (1984-1988) the outline of their content and objectives. The Commission has drawn up these outlines in closest co-operation with the Standing Committee on Agricultural Research.

15. To implement the present Proposal for the 1984-1988 five-year Programme, the Commission proposes the budget of 65 MECU allowing for new activities in the fields of biomass, energy savings, selected marketing aspects (1), and pilot projects, and doubling in real terms the budget of the current (1979-1983) Programme of 19.7 MECU. The latter figure represented the same level of spending as in the first Programme of 1975-1978 (3.7 MECUp.a.), in spite of increased costs and doubled activities since 1975. The proposed figure of 65 MECU, while bringing the Community agricultural research spending to some 2 per cent of the total research and development (R and D) budget, would leave it still the smallest percentage among the five research areas (along with energy, raw materials, environment, and certain industrial aspects), singled out as priorities by the Council of Ministers.

16. Annex II sets out the financial details of the Proposal.

17. It is further proposed that the Council adopt, in accordance with Article 5 of Regulation (EEC) N° 1728/74 of 27 June 1974, the attached Decision before the end of 1982.

---

(1) The three fields whose importance was underlined in the Memorandum on the Mandate of 30 May 1980 (COM(81)608).

PROPOSAL FOR A  
COUNCIL DECISION

adopting joint research programmes and programmes for coordinating agricultural research.

THE COUNCIL OF THE EUROPEAN COMMUNITIES

Having regard to the Treaty establishing the European Economic Community, and in particular Article 43 thereof,

Having regard to the proposal from the Commission <sup>(1)</sup>,

Having regard to the Opinion of the European Parliament <sup>(2)</sup>,

Whereas Council Regulation (EEC) n° 1728/74 of 27 June 1974 on the coordination of agricultural research <sup>(3)</sup> provides for coordination at Community level of national agricultural research projects, in order to contribute towards attaining the objectives of the common agricultural policy ;

Whereas Article 5 of Regulation (EEC) No 1720/74 provides that the Council is to decide upon specific measures for the coordination of research activities so as to allow rational organization of means employed, efficient use of results and the orientation of such work towards the aims of the common agricultural policy, as well as for implementation of joint projects designed to second or supplement work undertaken in the Member States in fields which are of particular importance to the Community ;

Whereas one of the major problems facing agricultural research in the years to come will be confining the rapidly escalating costs of agricultural inputs by inter alia developing new production, processing , and conservation techniques aimed at direct and indirect savings of traditional energy sources, and at energy production within the agricultural sector itself ;

Whereas efforts must continue to ensure the most rational pattern of utilization of the limited natural resources of land, water, climate, and manpower

./. .

(1) OJ N° C

(2) OJ N° C

(3) OJ L 182 of 5.7.1974, page 1

engaged in agricultural production in the Community, with particular reference to resource evaluation, soil erosion and degradation, water control, and resource management systems ;

Whereas numerous areas in the Community are lagging behind others in development, thus accentuating already sharp regional contrasts in economic growth, income and employment opportunities, especially as between the Mediterranean region and the EEC, as well as in certain other disadvantaged areas; whereas research must play its part in finding solutions to these increasingly serious, structural problems of growing regional disparities ;

Whereas concern to improve the quality of all food products is increasing and research is needed to elaborate and clarify some of the important problems involved, including not only important aspects of hygiene and residues but also the less tangible questions of consumer tastes and preferences for foods produced under intensive and extensive systems, as well as the marketing and trade aspects associated with end product quality ; and whereas the pressure of supplies in a number of food products justifies major research effort to locate new outlets for such products ;

Whereas animal production, in particular meat production is currently a relatively inefficient sector of agriculture in the European Community, despite the considerable national research efforts devoted to beef and veal, pigmeat and sheepmeat ; whereas measures must be taken to remove as far as possible obstacles to productive efficiency, including in particular reproductive performance in all farm livestock, losses due to diseases, and human health hazards resulting from contact with animal products contaminated by animal pathogens infections for man and other residues ; whereas increasing attention must be focussed on the adverse effects which some systems of animal husbandry might have on animal welfare ;

Whereas future research in the field of major crops must be able to meet the twin challenge of the continuing need for advances in productive efficiency, without creating surpluses, through improvements in yields of the existing varieties, creation of new varieties, e.g. through the application of genetic engineering, in tillage practices, and control of pest and plant diseases, and of the growing protein deficit at the European level, while production of certain existing surplus products could be usefully replaced by the cultivation of deficit crops and products with currently unexploited potential, such as grass and forage crops, protein and oilseed crops, and special purpose crops ;

Whereas the framework programme for science and technology activities gives particular emphasis to the promotion of agricultural competitiveness and proposes to give greater priority to this area ,

HAS DECIDED AS FOLLOWS :

Article 1

1. The common research programmes and the programmes to co-ordinate research concerning conservation and utilization of agricultural resources , structural problems and improvement of plant and animal productivity, as specified in Annex 1, are hereby adopted.
2. The programmes shall run for five years from 1 January 1984.

The total resources necessary for the duration of the programme is estimated at (                      ECU). The figures are given merely by way of indication.

The annual appropriations shall be fixed in accordance with the budget procedure.

Article 2

Detailed rules for the application of this Decision concerning in particular the scientific priorities to be observed in the framework of common and co-ordinated programmes, the criteria for selecting the research centres and institutes invited to collaborate in implementing the specific measures and the guidance of programmes while they are being carried out shall be adopted in accordance with the procedure laid down in Article 8 of Regulation (EEC) N° 1728/74.

The annual breakdown and financial management of the appropriations for the various programmes shall be decided in accordance with the same procedure.

./..



Article 3

The Commission shall ensure implementation of the co-ordination programmes by organizing seminars, conferences, study visits, exchanges of research workers and scientific working meetings and by collecting, analyzing and publishing the results as well as by increasingly availing itself of outside high-level experts such as consultants, scientific and economic advisers, and technical experts.

The Commission shall implement the common research programmes by concluding research contracts with research centres and institutes taking part in the specific measures.

The Commission may, by means of ad hoc contracts, finance measures aimed at testing and applying the results of the research in the field.

Article 4

On 1 July 1986 and, after conclusion of the programmes, not later than 31 July 1989 the Commission shall report to the European Parliament and the Council on the results of the activities carried out under the programmes covered by this Decision and on the use of the funds allocated for these measures.

Done at Brussels,

For the Council,

The President

## ANNEX I

### SPECIFIC MEASURES

#### I. UTILISATION AND CONSERVATION OF AGRICULTURAL RESOURCES

##### 1. ENERGY IN AGRICULTURE

The programme will study economies which can be effected in the energy intensive sectors of agriculture. Also, it envisages the possibility of producing and exploiting biomass and agricultural by-products profitable for energy.

There are three parts :

- (a) Indirect economy of energy - Fertilizers and plant protection materials
  - Optimising the use of fertilizers (mainly nitrogen), biological nitrogen fixation, organic fertilizers and photosynthesis
  - Integrated plant protection
- (b) Direct economy of energy - Oil use
  - Cultural practices, working methods and matching machines to the needs of the job.
  - Making maximum use of energy, in particular solar energy, for protected (glasshouse) crops and for crop drying, etc...
- (c) Production of energy
  - The use of crops of economic and industrial interest to produce energy from biomass
  - More efficient use of crop by-products
  - The socio-economic effects of those crops on the CAP, and the implications for structures, markets and the environment.

##### 2. LAND AND WATER USE AND MANAGEMENT

Improved use and conservation of the natural resources of land and water within the Community are the objectives of this programme. Soil degradation, effects of management systems on fertility and the evaluation of land production potential will be considered in conjunction with their effects on energy balance, the environment and socio-economic implications.

There are 4 sub-divisions :

- (a) Degradation and fertility
  - Soil erosion, (in particular, the effect of reforestation), loss of nutrients (leaching, oxidation and denitrification)

../..

- Adverse factors such as soil compaction, poor soil structure, the misuse of machinery, methods and cropping systems, etc...
  - Soil microbiological activity.
- (b) Control and management of water in agriculture
- Control of excesses, or deficits of water, environmental and economic effects of modifications.
- (c) Management systems
- Optimal utilisation of land and water resources for the production of food and energy crops
  - Comparison of low input farming systems with conventional intensive ones.
- (d) Land suitability and resource evaluation
- Production potential maps for the principal crops of the EEC
  - Computerisation of land-use data
  - Potential uses of remote sensing

## II. STRUCTURAL PROBLEMS

### 1. MEDITERRANEAN AGRICULTURE

The objective of the programme is to reduce the economic and social disparities that exist between the Mediterranean area and the more advanced parts of the Communities. It is hoped to improve its agriculture through advanced economic and technical developments similar to those in the Northern parts.

The priorities which are specific to the Mediterranean region are as follows :

- (a) To remedy deficiencies such as stock farming in marginal zones (the use of forests as grazing land, to help prevent fires); forests for quick yields (poplar, Douglas fir...), tobacco, nuts (dry fruits), plant protein, cereals, seed production, etc...)  
Attention will also be given to solving problems of surplus production, e.g. wine, and encouraging production of medicinal, aromatic and other interesting crops.
- (b) Attention will be focussed on the technical developments needed for protected cropping, out-of-season crops, irrigation, improvement of calcareous soils, diseases of plants and animals, systems of production, and farm structures which allow the most effective use of the results.
- Improving the techniques of production only will not solve existing problems in many cases. It will, therefore, be necessary to associate research with demonstration and application of its results in the field.

### 2. OTHER REGIONS

Other Community regions may feature economic and social imbalances similar to those of the Mediterranean (French overseas departments, West of Ireland).

### 3. AGRO-FOOD

Improvement of the quality of agricultural products is the main aim of this programme, which is basically oriented towards human consumption. The methods of production and processing will be examined. While some qualitative aspects, like hygiene, residues, etc... are easy to define and measure, others, e.g. flavours, are more elusive and difficult to control.

There will be the following sub-divisions :

- (a) A study of the relationship between the production system and quality, with particular reference to a comparison between intensive and extensive methods
  - the impact of such practices as use of mineral fertilizers, organic farming, plant protection methods, etc... will be measured
- (b) Problems concerning marketing, hygiene, levels of residues will be studied, especially
  - the importance of hormones, antibiotics, pesticides, heavy metals,
  - to develop methods for the objective evaluation of quality
- (c) Markets and marketing in relation to end-product quality and the preoccupations of consumers
- (d) New products and new techniques of utilization of agricultural products will be investigated.

### III. IMPROVEMENT OF ANIMAL AND PLANT PRODUCTIVITY

#### 1. ANIMAL HUSBANDRY

The objective of the programme is to examine the actual constraints on efficiency of production such as losses through diseases (including possible new diseases), conditions of animal rearing (including transport and slaughter) and the rate of reproduction of all domestic animals.

.../...

There are three specific parts :

(a) Animal Health

- Strategic research on important diseases
- Immune mechanisms and disease protection
- Development and harmonisation of diagnostic methods
- Occurrence and economics of disease control

(b) Animal Welfare

- Social and physical space requirements
- Disturbed behaviour and stress
- Transport of farm animals
- Alternative production systems

(c) Livestock productivity and management

- Reproduction in cattle, pigs and sheep
- Study of the physiology of reproduction
- Rumen function and feeding standards
- Live body composition
- Improvement of biological and economic efficiency

2. PLANT PRODUCTIVITY

The aim of this programme is increased returns to the farmer, through improving his productivity by more rational use of inputs. The programme will devote particular attention to production that are in short supply within the Community, e.g. plant protein for animal feed, etc...

There are three sub-divisions :

- (a) continued plant breeding for improved disease resistance, better quality products and stability of yields,
- (b) optimising agronomic methods and techniques from the point of view of physiological needs of plants,
- (c) the use of modern methods of biotechnology and tissue culture for crop plant propagation.

Particular attention will be given to forage crops, to crops deficit in the Community, crops of particular regional interest, and crops that can be used to produce alternative sources of energy, in line with the emphasis laid by the European Parliament on strengthening research in the field of plant proteins (1).

.../...

---

(1) European Parliament : Doc. I-550/125 of 7 October 1981; Proposal to amend the Community Budget for 1982 by the Commission on Agriculture.

ANNEX II

FINANCIAL STATEMENT

Date : 24.11.82

1. BUDGET HEADING : 3841

APPROPRIATIONS : Budget 1983  
5.539.950 ECU

2. TITLE : Proposal for a council decision adopting joint research programmes and programmes for coordinating agricultural research

3. LEGAL BASIS : Article 43 EEC Treaty

4. AIMS OF PROJECT : New quinquennial agricultural research programme concerning:  
1. Utilization and conservation of agricultural resources  
2. Structural problems.  
3. Improvement of plant and animal productivity

| 5. FINANCIAL IMPLICATIONS | PERIOD OF 12 MONTHS   | CURRENT FINANCIAL YEAR<br>( 1983 ) | FOLLOWING FINANCIAL YEAR<br>( 1984 ) |                    |
|---------------------------|---|------------------------------------|--------------------------------------|--------------------|
|                           | <p>Quinquennial Programme 1984-1988<br/>65 MECU</p> <p>Commitment appropriation<br/>Payment appropriation</p> |                                    |                                      | 15 MECU<br>11 MECU |
|                           | .....1985.....  | ...1986.....                       | ....1987.....                        | .....1988.....     |
| Commitment appropriation  | 15  | 15                                 | 15                                   | 5                  |
| Payment appropriation     | 12  | 13                                 | 14                                   | 15                 |

5.2 METHOD OF CALCULATION

SEE ANNEX

6.0

6.1

6.2

6.3 WILL FUTURE BUDGET APPROPRIATIONS BE NECESSARY ? 1984-1988 YES/

OBSERVATIONS :

The total finance of 65 MECU and the estimated financial allocations to the different parts of the programme have been partitioned in view of the needs of the future research and based on the experience acquired in implementing previous research programmes.

The finance allocated to the budget heading 3841 to carry out the programme from 1984 to 1988 will be dissociated with a distinction between commitment appropriation and payment appropriation.

The finance will be partitioned to the different parts of the programme as indicated in the attached table. Utilization and conservation of agricultural resources will receive 40 % of the budget and 30 % to each of the other main blocks namely Structural problems and Improvement of plant and animal productivity.

The estimated annual expenditure is fixed as follows :

|      | <u>Commitment appropriations</u> | <u>Payment appropriations</u> |
|------|----------------------------------|-------------------------------|
|      | <u>MECU</u>                      | <u>MECU</u>                   |
| 1984 | 15                               | 11                            |
| 1985 | 15                               | 12                            |
| 1986 | 15                               | 13                            |
| 1987 | 15                               | 14                            |
| 1988 | 5                                | 15                            |

The mean annual increase in the finance allocated, 8 %, will allow for increasing costs including salaires.

The execution of this research programme will be partly by common actions, approximately 75 % of the total financial allocation, and partly by coordinated actions.

## ANNEX II

ESTIMATED BREAKDOWN OF APPROPRIATIONS BY POLICY THEMES AND RESEARCH PROGRAMMES  
FOR THE FIVE YEAR PERIOD 1984-1988  
ECU (\*)

| Policy themes and Research programmes  | 1984       | 1985       | 1986       | 1987       | 1988       | Total per programme | Total per theme |
|--|------------|------------|------------|------------|------------|---------------------|-----------------|
| <u>POLICY THEME I</u><br><u>Utilization and conservation of agricultural resources</u> |            |            |            |            |            |                     |                 |
| 1. Energy in agriculture   | 4.400.000  | 4.800.000  | 5.200.000  | 5.600.000  | 6.000.000  | -                   | 26.000.000      |
| 2. Land and water use and management   | 2.800.000  | 3.000.000  | 3.200.000  | 3.400.000  | 3.600.000  | 16.000.000          |                 |
|  | 1.600.000  | 1.800.000  | 2.000.000  | 2.200.000  | 2.400.000  | 10.000.000          |                 |
| <u>POLICY THEME II</u>   |            |            |            |            |            |                     |                 |
|  | 3.300.000  | 3.600.000  | 3.900.000  | 4.200.000  | 4.500.000  | -                   | 19.500.000      |
| 3. Mediterranean agriculture   | 2.800.000  | 3.000.000  | 3.200.000  | 3.400.000  | 3.600.000  | 16.000.000          |                 |
|  | 500.000    | 600.000    | 700.000    | 800.000    | 900.000    | 3.500.000           |                 |
| <u>POLICY THEME III</u><br><u>Improvement of plant and animal productivity</u>         |            |            |            |            |            |                     |                 |
| 5. Animal husbandry  | 3.300.000  | 3.600.000  | 3.900.000  | 4.200.000  | 4.500.000  | -                   | 19.500.000      |
| 6. Plant productivity  | 2.200.000  | 2.400.000  | 2.600.000  | 2.800.000  | 3.000.000  | 13.000.000          |                 |
|  | 1.100.000  | 1.200.000  | 1.300.000  | 1.400.000  | 1.500.000  | 6.500.000           |                 |
| TOTAL  | 11.000.000 | 12.000.000 | 13.000.000 | 14.000.000 | 15.000.000 | -                   | 65.000.000      |

(\*) June 1982.