

COMMISSION OF THE EUROPEAN COMMUNITIES

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Annual report to Council and Parliament

under Article 4 of Council Decision of 30 October 1978 (78/902/EEC)
adopting common research programmes and programmes for the coordina-
tion of agricultural research (1979-1983)

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Annual report to Council and Parliament

under Article 4 of Council Decision of 30 October 1978 (78/902/EEC) adopting common research programmes and programmes for the coordination of agricultural research (1979-1983).

Background

The Council of the European Communities meeting in Luxembourg on October, 30th, 1978, adopted a proposal for joint agricultural research programmes and programmes for coordinating agricultural research on specific subjects within the Community for a period of five years starting on January, 1st, 1979, and with a Community's financial contribution of 18.602.000 U.C. for the five years period (1)

Article 4 of this Decision requests the Commission to report to the Council and the European Parliament on the progress.

The present report covers the period 1979/80.

Continuing within the framework of the general aims of the Coordinated Agricultural Research briefly summarised as facilitating the attainment of the objectives of the Common Agricultural Policy and contributing towards its efficiency and effectiveness - the specific objectives of the 1979-83 period were set out in an Annex to the proposal adopted by Council. These objectives are :

A. SOCIO-STRUCTURAL OBJECTIVES

1. Programme for the appropriate use of land and rural development
2. Programme on Mediterranean agriculture
3. Programme on agricultural waste and the effluent of intensive stock rearing

(1) Decision 78/902 EEC of 30 October 1978 - O.J. n° L 316/38.

B. ELIMINATION OF BARRIERS ON THE INTRA-COMMUNITY AGRICULTURAL MARKETS

4. Programme on animal pathology

C. PRODUCTION EFFICIENCY

5. Programme to improve the productivity of Community beef herds

6. Programmes on integrated and biological pest control

7. Programme on ways of improving plant resistance to disease

8. Programme on primary processing of agricultural products

9. Programme on elm disease

D. ALTERNATIVE PRODUCTS (INCREASE OF MARKET VALUE OF FODDER PRODUCTION)

10. Programme for improved production of vegetable proteins

Summary of Progress during 1979 and 1980.

Of the 10 programmes, four are continuations - with some modifications - from the earlier phase. These concern farm effluent, animal disease, beef productivity, and protein production from crops.

For these it has been a period of completion of projects or of preparation for transfer to national funding (instead of 50:50 funding) in line with the Coordinated Programmes function as a catalyst and not a continuing provider. The Effluent (now Farm Waste) programme is unusual in that it is, in part, being transferred to another Division of the Commission (DG XII)

Aspects of the animal pathology, beef and plant protein programmes may be carried forward into a future phase. A critical evaluation of these has been started - looking at problems that have emerged in the processes of formulating, implementing and terminating programmes - to prepare for the initial planning in 1983 of programmes for the third period of coordinated research due to start in 1984.

As the old programmes have been winding down, the new ones have been winding up. For them, the first year of the new period was largely used for planning and for meetings designed to establish priorities for research. The use of the budget for the 10 programmes was apportioned as follows :

| <u>1979</u> | <u>EUA</u> | <u>%</u> |
|--|------------|----------|
| Coordination activities (seminars, workshops, exchanges) | 867.600 | 32 |

| | <u>EUA</u> | <u>%</u> |
|--|------------------|----------|
| Common activities (research projects) | 1 832 400 | 68 |
| TOTAL | <u>2 705 000</u> | |

In 1980, the absence of a Community Budget until July, owing to the conflict between the Council and the European Parliament, created considerable difficulties for the running of the Programme and particularly the implementation of the Common Activities (research projects) of the new programmes. Until a 1980 budget was accepted, operations had to proceed on a monthly budgeting basis (one-twelfth of the 1979 budget). Despite this severe constraint, 90% of the increased 1980 budget was spent. The breakdown was as follows:

| <u>1980</u> | EUA | % |
|--|------------------|----|
| Coordinated activities (Seminars, workshops, exchanges) | 967 993 | 29 |
| Common activities (research projects) | 2 332 107 | 71 |
| | <u>3 300 000</u> | |

During the two years the budget has been apportioned to the different categories of programmes as follows:

| <u>Programmes</u> | <u>1979</u> | <u>1980</u> |
|--------------------------------|------------------|------------------|
| A. Socio-Structural Objectives | 1 104 000 | 1 263 000 |
| B. Elimination of Barriers | 300 000 | 335 000 |
| C. Production Efficiency | 781 000 | 1 077 000 |
| D. Alternative Products | 520 000 | 620 000 |
| TOTALS | <u>2 705 000</u> | <u>3 300 000</u> |

The total budget for coordinated agricultural research within the Community remains extremely small (approximately 1 % of the Commission's expenditure on research and development). Despite this and the particular difficulties in 1980 mentioned above, considerable progress has been made in improving communications between scientists, in the more effective use of research-resources through a cooperative approach, and in the pursuit of research programmes which have important significance to the Community as an entity.

Highlights of the 10 programmes

1. Land Use and Rural Development.

This programme differs from most of the others in that it has a strong socio-economic component. It is therefore necessarily a complex programme that has required a lot of discussion and planning but has now been rationalised within three main themes :

- Land resource evaluation
- Land resource development and conservation
- Integrated rural development

A seminar held at Wexford in the Republic of Ireland at the end of 1978 highlighted the need for a soil map as a basic requirement leading to a meaningful agro-ecological map of Europe. Such a map covering all Member States plus Greece, Portugal and Spain is now in an advanced stage. A draft will be ready in 1981 and it is planned that the final map (scale 1:1m) will go to the printers in 1982. The preparation of a forage map is now under discussion and other subjects for mapping which may follow are forestry and major agricultural crops such as cereals.

Land Resource Evaluation within the Community is hampered by the varying methods of land assessment currently employed in different Member States. Therefore, five methodology projects are in progress, and workshops have been arranged for the purpose of making recommendations on a uniform land evaluation methodology and the need for computerised land use data.

The Land Resource Development and Conservation part of the programme has eight research projects covering multiple land use, drainage and reclamation, and soil degradation. A major seminar on soil degradation at Wageningen, Netherlands, in October 1980 established priority aspects for research at Community level.

The 1979-80 period has been a preparatory one with regard to Integrated Rural Development, but major emphasis to this part of the programme

will be given in 1981-83. Case studies are to be made by multi-disciplinary teams of experts in projects which give a representative geographical spread of the more disadvantaged areas of the Community ; these studies will give considerable weight to human aspects.

2. Mediterranean Agriculture

Because the Agrimed programme concerns a specific area rather than a trans-Community subject and because - like the Land Use programme - it is concerned with socio-economic difficulties in a disadvantaged area as well as scientific research, it has had its own peculiar problems of planning and organisation. However, although still somewhat diverse in subject matter, it has now emerged with clear cut objectives and this in itself is a significant achievement in the time taken.

Two major parts of the programme concern the integration of sheep (mainly for milk production) with forestry and the improvement of field crops (cereals, forages and oil/protein crops) in the region. There are particular problems related to the effective use of nitrogenous fertiliser in the context of the sequence of crops commonly used in the Mediterranean area, so this has been selected as a project subject. Forage seed production is also being given attention.

Good collaboration among different laboratories in the Member States has been developed as requests problems posed by the new regulation on the utilization of concentrated residues from wine grapes.

Fruitful collaboration is being established among 26 Institutes in the Community to standardize the drip irrigation of fruit trees with a view to saving water and energy.

Other subjects being covered by the Agrimed programmes relate to oriental tobacco cultivated in Southern Italy (an important meeting held at Scafati and Lecce had permitted to scientists and growers to discuss the main problems in productivity improvement) and to Cyprus disease and pear fire blight.

3. Agricultural Waste and the Effluent from Intensive Livestock Systems

What had been a programme on effluent from livestock - concerned with the efficient use of nutrients for crop production as well as environmental aspects - broadened in 1979-80 to include some other farm waste materials

(such as straw) and food industry wastes (such as residues from factory processing of olives and potatoes).

At this stage, some over-lapping began to occur between this programme and the R & D programme in the field of recycling of urban, industrial and agricultural waste (secondary raw materials), managed by the Directorate-General for Science, Research and Development. It was therefore decided that from January 1981 onwards on livestock effluents would be discontinued, with the exception of research on anaerobic digestion, the latter, with vegetable wastes, to be transferred to the waste recycling programme.

The remaining portion of the budget is being made available for a new programme on animal welfare (see p. 11).

The achievements of the programme in respect of animal wastes were discussed at a seminar in Germany in October 1979 and the proceedings have been published under the title "Effluents from Livestock" (EUR 6633).

The results of a study done under the programme in the Netherlands have been published by the Commission under the title "The spreading of animal excrement on utilized agricultural areas of the Community." A workshop is planned for Spring 1981 to discuss a practical guide for farmers which is being produced for the Community by workers in the Netherlands, drawing upon the published findings of the effluents programme.

In addition to work on the techniques of spreading effluents and the value of nutrients in them, the programme has contributed scientific findings to the debate on the build up of copper in soils. This relates mainly to excreta from pigs fed copper additives and to the intensive use of copper fungicides on crops, notably Bordeaux Mixture on vines. As the result of evidence discussed at a meeting arranged by the Programme at Bordeaux in October 1980 the implementation of a Commission Directive reducing the permissible level of copper in pig feeds has been postponed until November 1981.

Animal Pathology

The Animal Pathology Programme continues to be a very important section of the overall Programme of Coordinated Agricultural Research. Of the four topics now included, Bovine Leukosis and African Swine Fever continued from the earlier period and two others are new. These latter are concerned with the protection

of young animals from perinatal diseases and with communicable diseases (from animal to animal and from animals to man through the storage, handling, transport and land-spreading of manure).

The common (research) programme on bovine leukosis was brought to an end in 1979 having achieved the objective of a simple standardised test for early diagnosis. In March 1980 a training course was held in Copenhagen on diagnosis using the ELISA Test. The bovine leukosis programme has achieved excellent results and much knowledge has been acquired, but eradication remains a problem. In order to evaluate the different proposals for eradication, better diagnostic methods are still needed and it is considered important that scientists working in this area should consider to meet at seminars and workshops to discuss their results.

Eradication is also the aim of the African Swine Fever work which is largely concentrated in Spain at the CEC's reference centre in Madrid and in Portugal at a laboratory in Lisbon. During 1980 three experts visited the infected area of Sardinia ; a training course on diagnostic techniques was held in Madrid ; and there was a workshop to discuss the methodology of diagnosis and the spread of the disease by carriers.

Research projects into perinatal diseases of young animals started in late 1980. A seminar on communicable diseases of animals and man via effluents was held in Hanover in November. It is planned that the common programme should run during 1982 and 1983 and should concentrate on *Campylobacter* and *Listeriosis*, with special attention to a modelling approach.

5. Improving the Productivity of Beef Herds

In this second phase of the beef programme, the scale of contracts has been cut down and emphasis has been on giving funding to help finish promising work. All contracts end in 1980. There have been four working groups concerned with genetics, nutrition and management, meat and carcass quality, and physiology of reproduction.

Subjects of seminars have included the standardisation of research methods of feeding stuffs analyses, and beef from cull cows. Result of research

into the early calving of heifers and the use of these once-bred animals for beef have shown that there need be no technical difficulties but, owing to prejudice, the trade continues to pay less for a bred heifer and some member states have legislation which effectively prevents the use of the technique.

One of the more interesting meat research projects demonstrates well the advantage of a Community-based programme. Eight Member States cooperated in an eating quality test which was coordinated by the Meat Research Institute in the U.K.

An important objective of this work is to achieve a standard method of testing and substantial progress has been made in this direction. The programme is also working towards a standard methodology for evaluating bacteriological quality of meat.

6. Integrated and Biological Pest Control

The overall aim is to develop methods of effective crop pest control which minimise the use of chemicals, thus avoiding risks to human health and the environment and reducing growers' costs. The programme is concentrating on fruit, vegetables and cereals.

With fruit, work on integrated control is already well advanced in Member States so the emphasis is on coordination and on solution of specific problems such as the production of virus-based pesticides and a reduction in the use of chemicals in olive and citrus orchards.

With vegetables, less information is available on integrated systems. Cabbage and carrots have been selected for particular studies on the use of viruses as pesticides and on the predictability of pests' invasions.

With cereals, the concept of integrated control is at an early stage. The programme is concentrating on research which should lead to a reduction in the use of fungicides and also add to present knowledge of cereal aphids so that population dynamics can be better understood and invasions predicted.

The practical use of biological and integrated pest control is dependent upon the availability of biopesticides. Two workshops organised by the programme in 1979 dealt with testing and registration of biopesticides and resulted in a document which currently serves as

the basis for Community legislation in this field.

7. Improving Plant Resistance (and gene banks)

This programme has two distinct objectives :

- the achievement of long-lasting resistance to disease through plant breeding ;
- more effective use of gene banks through improved coordination and standardisation of procedures and descriptions.

To date a main emphasis has been placed on drawing up descriptor lists for a number of selected crops. The working committee, with representatives from Member States, has agreed on a system for descriptors. The work on lists for cereals, grasses, legumes and strawberries is now in an advanced stage ; a small amount of work has been done with potatoes.

A common activity involving the collection of plant material of brassicae, winter barley and grasses (within the Community only) is about to start.

As the result of a seminar on documentation and information for gene banks held at Braunschweig, Germany, and a subsequent meeting at the Germplasm Institute in Bari, Italy, the Commission was asked to assist in resolving problems of communication of data between existing gene banks which use different data processing systems. It was also resolved to try to avoid such problems in the future by advising during the planning stage of new gene bank projects in the Community.

In 1979, it was decided to select winter barley to be evaluated for disease resistance. Nine institutes are participating. The first year's trial (1979-80) has been completed and experts met in December to discuss results. Seeds have now been sown for a second year's trial.

With this programme the Commission take part in the FAO/UNDP European Cooperative Programme for the Conservation and Exchange of Crop Genetic Resources, in which actually 20 European States are implied, and has a close coordination with other international organisations including the Northern Genes Bank.

8. Agro-food (production techniques and food quality)

This has been a difficult programme in respect of defining objectives, bearing in mind the need to have a consumer orientation while retaining an agricultural focus. Therefore, 1979-80 has been taken up largely by meetings for discussion and planning.

It has been decided to concentrate initially on tomatoes, apples and chicken (for meat), looking at the production factors which may affect quality as understood by the consumer. In the case of crops these would be such factors as fertilisers, pesticides and bred varieties. In the case of chicken, intensive (cage) and semi-intensive (on-floor) systems will be compared and also the nutrition of the birds.

A basic difficulty will be to define quality. To this end, chemical criteria will be used for objective evaluation and tasting panels will be brought in for subjective evaluation. 13 research contracts have been signed to develop this programme.

9. Dutch Elm Disease

Coordinated and research activities into elm disease are concerned with the three aspects :

- the beetle which transmits the disease,
- the fungus disease itself, and
- selection of resistant trees.

Research based on the use of pheromones is underway in several Member States. Another project is investigating the volatile gasses in living wood to see if there is a relationship between these and the resistance of certain trees to beetle attack or to development of the fungus following beetle entry.

A study of origins of the disease. This is involving liaison not only between experts within the Community but also forestry people in America, eastern Europe and parts of Asia.

The Dutch Elm Disease has some connections with the Oak Wilt disease. This, too, is a fungal disease but in the USA it is spread mainly at root level with very little part being played by a beetle vector. It is feared that this might not be the case should it be introduced to Europe, in which case it could be much more serious on this side of the Atlantic. New common research (also involving American workers) will aim to give a scientific base for possible modifications of the phytopathological Community Directive.

10. Improving the Production of Plant Proteins

It is considered important that the Community itself should produce a higher proportion of its requirement of vegetable proteins (mainly for animal feed). Therefore, the plant protein production programme was continued from this second period, but with some changes in emphasis. Higher priority is being given to work on grain legumes while support for oil seed rape is taking the form of coordination activities (meetings) only. Common research on grasses and forage legumes is continuing.

Among the particularly useful workshops that have been organised was one in Norwich, England, on Rhizobium ; this brought together specialists in the different aspects of the subject. Another was on field beans (Vicia faba) in Wageningen, Netherlands. A meeting on cereal proteins planned for 1980 was postponed until 1981.

As regards the common (research) activities, there were administrative difficulties which resulted in contracts not being signed until late 1979, thus delaying the start of research projects for nearly a year. Now contractants are concerned that funds budgetted for 1981 will be insufficient to carry the projects through.

New Directions

Recognising that Animal Welfare is a matter for Community concern and one on which several Member States now place great importance, the Commission has already taken steps to provide evidence (based on scientific research) as support material for the drafting of Community legislation on the subject. The work has evolved out of existing programmes and is being made possible by re-orientation and adjustment of priorities.

A small expert group of scientists representing Member States met in Brussels in September and again in December, 1979, to decide priorities. It was agreed that poultry welfare, especially that of laying hens in cages, was of immediate importance. Other major areas of relevance to the Community were identified as : pigs in cages ; veal calves (use of anabolic agents) ; transportation of farm animals ; slaughter procedures ; and welfare of other farm animals (e.g. cattle)

The CEC invited a multi-disciplinary group of scientists, veterinarians, welfarists, consumers, legislators, industrialists, producers and other representatives of Member States to a forum on poultry welfare in February 1980 for a frank and realistic exchange of views. This meeting demonstrated the Commission's concern to base any legislation on substantial factual evidence and all-round advice.

Scientists were invited to a seminar on "The Interaction of the laying hen and its environment at which technical issues were reviewed and areas for further research identified. Since then a poultry expert sub-group has worked out detailed proposals for seminars and research activities for 1981-83. The group is assisting the CEC with the technical section of a report to the Council on laying hens in cages.

Other seminars in 1980 covered "Dark cutting in Beef" (relevant to the welfare group because it is caused when the animal is under stress before slaughter) and "Pig Welfare" (pigs in cages, meat quality). There has already been some research into "dark cutting" under the beef programme and meetings on veal calf welfare, transportation and slaughter, and disturbed behaviour are planned for 1981.

A number of other new directions or subjects evolving from existing programmes are under consideration or in an early planning stage. In addition to those mentioned in their context above, they include research into certain diseases of farmed fish.

It is envisaged that the Coordinated Agricultural Research Programme, in the next period starting in 1984, may be restructured in order to group activities which are closely related, introduce a greater degree of flexibility and take into consideration the problems related to energy savings and energy production in agriculture.

PUBLICATIONS

of proceedings of seminars and workshops organized in the
framework of the agricultural research programme : year 1979

| DATE | TITLE | PLACE OF MEETING | Proceedings published under No |
|-------------|---|------------------|--------------------------------|
| June 79 | Use of computer in greenhouses | Wageningen (NL) | Acta Horticultural 106 |
| June 79 | EEC Seminar on Seed Legumes | Cambridge (UK) | EUR 6631 |
| October 79 | Growth optimization through microclimatic control. | Avignon (F) | Acta Horticultural 107 |
| October 79 | Effluents from Livestock | Oldenburg (D) | EUR 6633 |
| October 79 | Reference Jointing and Tissue Separation in Beef Carcasses | Caen (F) | EUR 6878 |
| October 79 | Rural Environment related to man | Bayreuth (D) | EUR 6876 |
| October 79 | The influence of soil types on the movement of water and salts after local irrigation. The efficiency of different methods of applying water by local irrigation. | Bologna (I) | EUR 6923 |
| November 79 | Energy and Protein feeding standards applied to the rearing and finishing in beef cattle | Theix (F) | EUR 6812 |
| November 79 | Cypress disease | Firenze (I) | EUR 6925 |
| November 79 | Workshop on Bovine Leucosis | Weybridge (UK) | EUR 6897 |
| | Total : 10 Publications in 1979 | | |

year 1980

| Date | Title | Place, of meeting | Proceedings published under N° |
|--------------|--|-------------------|--------------------------------|
| February 80 | Seminar; Epidemiology and control of nematodiosis in cattle | COPENHAGEN (DK) | EUR 6901 |
| March 80 | Symposium; Interaction of the laying hen and its Environment | LUXEMBOURG | EUR 6874 |
| April 80 | Seminar : "L'influence de l'irrigation localisée sur la morphologie et la physiologie des systèmes racinaires" | NAPOLI (I) | |
| May 80 | Seminar : "Methodologie des systèmes de culture" | TOULOUSE (F) | |
| May 80 | Seminar : "Grandes cultures - productions (céréales, oléo-protéagineux, fourrages)" | ROME (I) | |
| May 80 | EEC Workshop on nitrogen losses and surface run-off | WEXFORD (Irl.) | EUR 6898 |
| May 80 | Seminar; The Methodology of feedstuffs Analyses | LELYSTAD (NL) | - |
| June 80 | Scientific workshop : Diagnostic techniques for enteropathogenic agents associated with neonatal diarrhoea in calves and pigs. | LELYSTAD (NL) | |
| June 80 | Seminar : Double muscling in cattle | CARMAUX (F) | EUR 6896 |
| June 80 | Seminar on "Phosphorus in Sewage Sludge and animal waste slurries" (DG VI-DG XII) | HAREN (NL) | |
| June 80 | Seminar on reproductive physiology yield and idio-type in grain legumes. Field bean trials over a period of 4 years. | WAGENINGEN (NL) | EUR 6895 |
| July 80 | Seminar on the production and utilisation of protein in oilseed crops | BRAUNSCHWEIG (D) | EUR 6894 |
| September 80 | Symposium "More profitable use of energy in protected cultivation" | DUBLIN (Irl) | |
| September 80 | Seminar "Protection of the young animal - Mucosal Immunity" | BRISTOL (UK) | |
| October 80 | Seminar "The problem of dark cutting in beef" | BRUXELLES (B) | |
| October 80 | Workshop on problems encountered with copper (DG VI-DG XII) | BORDEAUX (F) | |

year 1980

| Date | Title | Place of meeting | Proceedings published under N° |
|-------------|---|--|--------------------------------|
| October 80 | Seminar "Elm bark beetle" | FREIBOURG (D) | |
| October 80 | Seminar on Evaluation of European Soil Degradation Problems | WAGENINGEN (NL) | |
| October 80 | In step in Europe Booklet describing the setting up and general aims of the 1st programmes (1975-1978) | | EUR 6720 |
| November 80 | Seminar : "Standardisation des méthodologies biotechniques" | SAN JULIANO (Corsica) SINISCOLA (Sardinia)(I) | |
| November 80 | Scientific Workshop : Diseases communicable from animal to animal and to man via effluents | HANNOVER (D) | |
| November 80 | 4th International Symposium "Bovine Leukosis" | BOLOGNA (I) | |
| November 80 | Seminar: Pig Welfare | BRUXELLES (B) | |
| November 80 | Meeting on forecasting pests and diseases as a means of avoiding unnecessary application of pesticides in cereals | ROTHAMSTED (UK) | |
| December 80 | Seminar : Agrimed ovins : Croisement industriel avec les races locales méditerranéennes | SARAGOSSA (SP) | |
| December 80 | Scientific workshop on the ELISA test for African Swine Fever Diagnosis | LISBON (P) | |
| December 80 | Seminar : The cull cow as a beef producer | ROME (I) | |
| December 80 | Seminar : Descriptors and descriptor states in cereals | BRAUNSCHWEIG (D) | |

Programme of meetings in 1979MARCH

| Programme | Date | Number of | Place | Title | Local organizer | EUA | |
|--------------------|-------|-----------|------------|---|-----------------|------------|--|
| | | | | | | COST (EUR) | |
| LAND USE | 1 | 14 | Brussels | Expert Group : Land resource evaluation | J. GILLOT | 7500 | |
| | 6 | 12 | Brussels | Expert Group : Disadvantaged areas | J. GILLOT | 6000 | |
| | 8 | 16 | Brussels | Expert Group: Soil degradation | J. GILLOT | 8000 | |
| BIOLOGICAL CONTROL | 20-21 | 11 | Paris | Expert Group : Lutte Intégrée en culture de Brassica | G. MATTHYS | 4000 | |
| LAND USE | 22-23 | 16 | Brussels | Expert Group : Rural environment related to man & Programme Committee | J. GILLOT | 7500 | |
| DUTCH ELM DISEASE | 26-29 | 17 | Wageningen | Dutch Elm Disease : fungus and host | H. BURDEKIN | 6000 | |

Programme of meetings in 1979

APRIL

| Programme | Date | Number of | Place | Title | Local organizer | COST (EUR) |
|--------------------|-------|-----------|----------|--|-----------------|------------|
| DUTCH ELM DISEASE | 2-3 | 15 | Brighton | Expert Group : Entomologists | H. Burdekin | 2500 |
| BIOLOGICAL CONTROL | 19-20 | 9 | Firenze | Expert Group : Lutte intégrée en culture d'oliviers et d'agrumes | R. Zocchi | 1250 |
| PLANT PROTEIN | 24-25 | 12 | Brussels | Programme Committee | A. Prendergast | 7500 |
| AGRIMED | 24-25 | 5 | Brussels | Expert Group : Feu bactérien du poirier | R. Trofsgras | 1000 |

Programme of meetings in 1979

MAY

| Programme | Date | Number of | Place | Title | Local organizer | COST (EUR) |
|--------------------|-------|-----------|-------------|---|--------------------|------------|
| AGRIMED | 3 | 12 | Brussels | Programme Committee | R. TROISGROS | 2000 |
| BIOLOGICAL CONTROL | 3-4 | 11 | Wageningen | Expert Group : Lutte intégrée en cultures de pommiers | P. GRUYS | 1750 |
| AGRIMED | 14-16 | 15 | Montpellier | Seminaire : Productions ovines + Expert group | M. THERIEZ | 13.250 |
| BIOLOGICAL CONTROL | 15-16 | 14 | Gembloux | Expert Group : Lutte intégrée en cultures de céréales | J. BERNARD | 2750 |
| | 18 | 9 | Brussels | Expert Group : Lutte intégrée en cultures de carottes | J. GILLOT | 1750 |
| GENE BANK | 22-23 | 16 | Bari | Programme Committee | E. PØRCEDDU | 6250 |
| AGRO-FOOD | 29-30 | 9 | Brussels | Expert Group : Food intake survey | J. DEHANDTSCHUTTER | 2250 |
| | 31 | 11 | Brussels | Expert Group : Losses | J. DEHANDTSCHUTTER | 3000 |

Programme of meetings in 1979

JUNE

| Programme | Date | Number of | Place | Title | Local organizer | COST (EUR) |
|--------------------|-------|-----------|------------|--|-----------------|------------|
| ANIMAL PATHOLOGY | 1 | 9 | Brussels | Expert Group : Bovine Leukosis | J. CONNELL | 1750 |
| AGRIMED | 6 | 5 | Brussels | Expert Group : Feu bactérien du poirier | R. TROISGROS | 1000 |
| BIOLOGICAL CONTROL | 6-7 | 13 | Firenze | Programme Committee | R. ZOCCHI | 5500 |
| ANIMAL PATHOLOGY | 11 | 7 | Brussels | Expert Group : Communicable disease | J. CONNELL | 1250 |
| | 12 | 11 | Brussels | Expert Group : African Swine Fever | J. CONNELL | 3000 |
| AGRIMED | 12 | 10 | Brussels | Expert Group : Tabacs orientaux | R. TROISGROS | 2500 |
| LAND USE | 12-14 | 12 | Brussels | Programme Committee | A. PRENDERGAST | 3250 |
| ANIMAL PATHOLOGY | 13 | 14 | Brussels | Exp. Group : Protection of the young animal | J. CONNELL | 2500 |
| | 18 | 10 | Brussels | Programme Committee | J. CONNELL | 2100 |
| AGRIMED | 19-22 | 13 | Wageningen | Seminar : Utilisation des ordinateurs dans le contrôle du climat sous serres | H. VAN DER BORG | 3250 |
| LAND USE | 20 | 17 | Gent | Exp. Gr. : Réalisation de la carte pédologique européenne | Prof. TAVERNIER | 2500 |
| BEEF PRODUCTION | 26-27 | 20 | Brussels | Exp. Gr. Genetics, nutrition and management + European Association for Animal Production | J. CONNELL | 5000 |

Programme of meetings in 1979JUNE

| Programme | Date | Number of | Place | Title | Local organizer | COST (EUR) |
|---------------|-------|-----------|-----------|--|-----------------|------------|
| Plant Protein | 26-29 | 34 | Cambridge | Programme Committee + Seminar : Seed legumes | Prof. COCKBAIN | 20500 |
| Agrimed | 26-27 | 8 | Brussels | Exp.Gr. Grandes cultures | R. TROISGROS | 2500 |

JULY

Programme of meetings in 1979

| Programme | Date | Number of | Place | Title | Local organizer | COST (EUR) |
|------------------|-------|-----------|--------------|----------------------------------|------------------|------------|
| Animal Pathology | 4-5 | 12 | Madrid | African Swine Fever Workshop | C.SANCHEZ BOTIJA | 2000 |
| Agrimed | 10-11 | 10 | Brussels | Exp.Gr. Irrigation localisée | R.TROISGROS | 2000 |
| | 12 | 10 | Brussels | Exp. Gr. Production ovine | R.TROISGROS | 2500 |
| | 16-21 | 9 | East Malling | Stage : Feu bactérien du poirier | Prof. POLLEZ | 3500 |
| Beef Production | 25 | 12 | Brussels | Exp.Gr. Maladie du cyprès | R.TROISGROS | 3000 |
| | 30 | 10 | Paris | Exp.Gr.:Eating Quality of Beef | R.BOCCARD | 2000 |

SEPTEMBERProgramme of meetings in 1979

| Programme | Date | Number of | Place | Title | Local organizer | COST (EUR) |
|-----------------|-------|-----------|----------|---------------------------------------|-----------------|------------|
| Beef Production | 4 | 7 | Brussels | Exp.Gr. Physiology of reproduction | J. CONNELL | 1500 |
| Animal Welfare | 5 | 6 | Brussels | Expert group | J. CONNELL | Poste 2500 |
| Beef Production | 6 | 9 | Brussels | Expert group Carcass and meat quality | J. CONNELL | 2000 |
| | 24-25 | 15 | Brussels | Programme Committee | J. CONNELL | 4500 |

OCTOBER

Programme of meetings in 1979

| Programme | Date | Number of | Place | Title | Local organizer | COST (EUR) |
|-----------------|-------|-----------|----------------|---|--------------------|------------|
| Agrimed | 1-4 | 27 | Avignon | Seminar : Optimisation de la croissance des Plantes sous serres + Exp.gr. Economie d'énergie en culture protégée | Prof. GUENNELON | 16000 |
| Plant Protein | 2-4 | 23 | Oxford | Workshop : Production of grass and grass/legumes awards | Prof. MORRISON | 8500 |
| Effluents | 2-5 | 40 | Oldenburg | Exp.Gr.Effluents from Livestocks | H. VETTER | 17750 |
| Land Use | 10 | 15 | Brussels | Exp.Gr.Soil degradation | A. PRENDERGAST | 3250 |
| Beef Production | 15-18 | 38 | Villers-Bocage | Seminar : E.C. reference beef carcass | B. DUMONT | 16000 |
| Gene Bank | 18-19 | 12 | Brussels | Programme Committee | J. DEHANDTSCHUTTER | 3000 |
| Land Use | 22-26 | 41 | Bayreuth | Seminar : Selected socio-economic aspects of land utilization + Programme Committee + Exp. Gr. Disadvantaged areas and rural environment related to man | Prof. HUSEMEYER | 24500 |
| Plant Protein | 29-30 | 10 | Risb | Exp.Gr. Cereal proteins | Prof. SANDFAER | 7000 |

| Programme | Date | Number of | Place | Title | Local organizer | COST (EUR) |
|--------------------|-------|-----------|---------------------|--|-------------------------------|------------|
| Animal Pathology | 5-6 | 12 | Brussels | Exp.Gr. African Swine Fever | J. CONNELL | 3500 |
| Biological Control | 6 | 13 | Brussels | Programme Committee | J. GILLOT | 2500 |
| Agrimed | 6-10 | 20 | Bologne | Seminar : Irrigation localisée + Expert group | Prof. LORENZETTI | 14750 |
| Beef Production | 13-16 | 40 | Theix | Seminar : Energy and protein feeding standards for beef cattle | C. BERANGER | 19750 |
| Biological control | 15-16 | 9 | Paris | Workshop : Innocuité des pesticides biologiques. | B. HURPIN | 2500 |
| Beef Production | 21 | 9 | Wageningen | Workshop : Production et application des biopesticides à base virale | P. GRUYS | 1500 |
| Beef Production | 22-23 | 15 | Zeist | Exp.Gr. Proposal for an European Community Hormone Center for agricultural experiments | W. SYBESMA | 2750 |
| Agrimed | 23-24 | 30 | Firenze | Seminar : Maladie du Cypres | V. GRASSO | 8750 |
| Animal Pathology | 25-27 | 9 | Scafati- Portici | Exp.Gr. Tabacs orientaux. | E. MARCELLI L. POSTIGLIONE | 7200 |
| Animal Pathology | 27 | 14 | Brussels | Exp.Gr. Protection of the young animal | J. CONNELL | 2500 |
| Plant Protein | 28-30 | 24 | Weybridge | Workshop : Bovine leukosis | L. MARKSON | 12500 |
| Plant Protein | 28-29 | 28 | Dijon | Workshop : Lupins | J. PICARD | 7250 |

Programme of meetings in 1979DECEMBER

| Programme | Date | Number of | Place | Title | Local organizer | COST (EUR) |
|------------------|------|-----------|----------|--|-------------------|------------|
| Plant Protein | 5 | 5 | Brussels | Exp.Gr. Production de semences de trèfles besoins futurs de recherche | A. PRENDERGAST | 1000 |
| Animal Pathology | 5 | 10 | Brussels | Programme Committee | J. CONNELL | 3750 |
| Agrimed | 5-6 | 17 | Brussels | Exp.Gr. : Systèmes de culture | R. TROISGROS | 2000 |
| Plant Protein | 6 | 4 | Brussels | Exp.Gr. : Cycle de l'azote dans les pâturages | A. PRENDERGAST | 1000 |
| Agrimed | 7 | 16 | Brussels | Programme Committee | R. TROISGROS | 3500 |
| Plant Protein | 11 | 13 | Brussels | Programme Committee | A. PRENDERGAST | 3000 |
| Land Use | 14 | 15 | Brussels | Exp.Gr. Land resource evaluation | A. PRENDERGAST | 3000 |
| Animal Welfare | 18 | 15 | Brussels | Exp.Gr. Framework for CEC action on animal Welfare | J. CONNELL | Poste 2500 |
| Effluents | 18 | 10 | Brussels | Programme Committee | J. DEHANDSCHUTTER | 2500 |

Echanges de chercheurs : Utilisation des sols - 1979

| Date | Destination | Lieu de provenance | Noms | Coût |
|---------------|-------------|--|---|------|
| 9 mai | WAGENINGEN | MAFF, Reading Rotterdam Bonn Bonn Dublin, | D. FITCH Dr HAANS Mr LAEPEL Dr HEIDE A. COLE | 1250 |
| 17 mai | WAGENINGEN | MAFF, Reading Dublin Bonn | D. FITCH A. COLE Dr HEIDE | 750 |
| 29 mai | BRUXELLES | Versailles Versailles Bonn Dublin Dublin Dulham | DEFFONTAINES BRUGERE LAEPEL CONWAY A. COLE J. ATKINSON | 1500 |
| 24-25 juillet | BRUXELLES | Dublin | A. COLE | 500 |

Echanges de chercheurs : AGRIMED 1979

| Date | Destination | Lieu de provenance | Noms | Coût |
|-----------------|-------------|----------------------------------|----------------------------|------|
| 3-6 septembre | PERUGIA | BRAUNSCHWEIG | DR PAUL | 1000 |
| 10-14 septembre | STUTTGART | WANTAGE | DR CANNELL | 500 |
| 16-21 septembre | DAX | MAIDSTONE HEIKENDORF-KITZBERG | DR BILLING Prof. ZELLER | 1000 |
| 8-15 décembre | EDINBURGH | THEIX | M. THERIEZ | 750 |

Echanges de chercheurs : Effluents 1979

28

| Date | Destination | Lieu de provenance | Noms | Coût |
|-------------------------|---|--------------------|-------------------|------|
| 23-24 mars | OLDENBURG | Arnhem | J. VOORBURG | 500 |
| 3 jours en juin | LOUVAIN LA NEUVE WAGENINGEN NEWCASTLE | Wexford | TUNNEY HERLIHY | 2000 |
| 2 jours en septembre | GEMBLoux COPENHAGUE | Dijon | G. CATROUX | 1000 |
| 10-11 décembre | WEXFORD | Arnhem | J. VOORBURG | 500 |

Echanges de chercheurs : Pathologie animale 1979

| Date | Destination | Lieu de provenance | Noms | Coût |
|-----------------------|-------------|---------------------------------|---------------------------------------|-------|
| 1 semaine en novembre | SASSARI | PERUGIA .. MADRID LONDRES | D. RUTILI A. ORDAS P. WILKINSON | 1.500 |
| 4-14 décembre | MADRID | PERUGIA | D. RUTILI | 750 |

Echanges de chercheurs : Viande bovine 1979

30

| Date | Destination | Lieu de provenance | Noms | Coût |
|-------------------------------|---------------|--------------------------|--|------|
| 17-22 juin | JOUY EN JOSAS | EDINBURGH BONN | R. SPOONER A. OLIVER D. CWICK | 1750 |
| 3-7 septembre | THEIX | BONN LEEDS BRISTOL | J. RUCKENBUSH J. FORBES A. WEBSTER | 1500 |
| septembre 1979- avril 1980 | DUBLIN | THEIX | A. L'ACOURT | 5750 |
| 22-26 octobre | BLISWORTH | EGTVED | H. BUSK P. LEVIN J. JACOBSEN | 1500 |
| 26-30 novembre | EGTVED | BLISWORTH | M. FURSEY M. ARNALL B. OWEN | 1800 |

Echanges de chercheurs : Protéines Végétales 1979

| Date | Destination | Lieu de provenance | Noms | Coût |
|---------------------------------|---------------------------------|---------------------|------------|------|
| 10 mai | STUTT GART | READING | R. PHIPPS | 1000 |
| 23-27 juillet | GATERSLEBEN- FRIEDRICHSWERTH | COPENHAGEN | M. POULSEN | 500 |
| septembre et octobre | ROTHAMSTED | LUXEMBOURG via RISØ | M. KREIS | 3000 |
| novembre 1979 à janvier 1980 | HURLEY | LONDRES | A. WILKIE | 4500 |

VI-F-4 Programme of meetings in 1980 : JANUARY

| Programme | Date | Number of participants | Place | Titel | Local organiser | Cost (EUA) |
|---------------------------|---------------|------------------------|----------|--|-------------------|------------|
| AGRIMED | 15-16 January | 25 | Brussels | Grandes cultures techniques de production - Phytotechnie | R. TROISGROS | Poste 2500 |
| EFFLUENTS from LIVESTOCKS | 25 January | 20 | Brussels | Effluents from Livestocks programme committee | J. DEHANDSCHÜTTER | Poste 2500 |

VI-f-4 Programme of meetings in 1980 : FEBRUARY

| Programme | Date | Number of participants | Place | Titel | Local organiser | Cost (EUA) |
|------------------|----------------|------------------------|-----------------|---|-------------------|------------|
| LAND-USE | 27 february | 16 | Brussels | Expert Group Rural Environment related to man | A. PRENDERGAST | 5.000 |
| ANIMAL PATHOLOGY | 4-6 february | 30 | Copenhagen (DK) | Workshop Epidemiology and control of nematodiosis in cattle | P. NANSEN | 15.000 |
| | 18-21 february | 20 | Madrid (E) | Expert group African Swine Fever and ELISA test standardisation | SANCHEZ-BOTIJA | 10.000 |
| BEEF PRODUCTION | 25-29 february | 15 | wageningen (NL) | Workshop Performance Testing of AI Bulls | R.D. POLOTIEK | 9.000 |
| | 29 february | 40 | Brussels | Consultation on the problems of Poultry welfare in the EEC | J. CONNELL | Poste 2500 |
| GENE BANK | 13-14 february | 22 | Brussels | Gene bank programme Committee | J. DEHANDSCHUTTER | Poste 2500 |

| Programme | Date | Number of participants | Place | Titel | Local organiser | Cost (EUA) |
|------------------|-------------|------------------------|-------------|---|-------------------|------------|
| LAND-USE | 25-26 march | 13 | Brussels | Programme Committee Land Use | A. PRENDERGAST | 6.000 |
| AGRICULTURE | 4-7 march | 10 | Brussels | Expert Group Grandes cultures - vins | R. TROISGROS | 2.500 |
| | | | | Ovins, paturages, forêts, contrats 0634, 0636 | LOPINARO | 6.000 |
| ANIMAL PATHOLOGY | 25-26 march | 10 | Antibes (F) | Cypress disease : preparation of contracts | J. PINCHET | 3.500 |
| | | | | Training Course Bovine Leukosis on the diagnosis of bovine leukosis with ELISA Test | R. HOFF-JØRGENSEN | 7.500 |
| BEES PRODUCTION | 4-5 march | 20 | Brussels | Expert group "Genetics Selection, Nutrition and management" | J. CONNELL | 6.250 |

4.

Programme of meetings in 1980 : MARCH

| Programme | Date | Number of participants | Place | Titel | Local organiser | Cost (EUA) |
|--------------------|-------------|------------------------|--------------|---|-------------------------|------------|
| | 11-14 march | 40 | Luxembourg | Symposium Animal Welfare on "The inter-action of the bird and its environment + Expert Group | V. FISCHBACH R. MOSS | 17.500 |
| | 19-21 march | 20 | Kulmbach (D) | Scientific working group "Eating quality of beef" and Expert group "Carcass and meat quality" | L. SCHÖN | 8.000 |
| BIOLOGICAL CONTROL | 18-19 march | 13 | Brussels | Meeting on "Innovation et réglementation des agents de lutte biologique" | A. PIAVAUX | 3.500 |
| | 25-27 march | 12 | Wye (UK) | Meeting "Entomoparasite and predators for biological control in orchards" | P. GRUYS | 3.500 |
| GENE BANK | 25 march | 11 | Brussels | Descriptors and descriptor states in strawberries | J. DEHANDSCHUTTER | 4.000 |
| GR0-FOOD | 26-27 march | 14 | Brussels | Programme Commit-Agro-Food | J. DEHANDSCHUTTER | 5.000 |

| Programme | Date | Number of participants | Place | Titel | Local organiser | Cost (EUA) |
|-------------------|-------------|------------------------|--------------|--|-----------------|------------|
| AGRIWED | 15-17 april | 60 | Naples (I) | Seminar "Influence de l'irrigation localisée sur la morphologie et la physiologie des systèmes racinaires" | P. TEDESCI | 18.000 |
| BEEF PRODUCTION | 15-17 april | 12 | Brussels | Expert group 1. Survey of research priorities in physiology of reproduction 2. Coordination programme 1980 | J. CONNELL | 3.500 |
| DUTCH ELM DISEASE | 15-17 april | 18 | Freiburg (D) | Seminar "Elm bark beetles" | D. KLIMETZEK | 6.000 |

| Programme | Date | Number of participants | Place | Titel | Local organiser | Cost (EUA) |
|--------------------------|-----------|------------------------|---------------|---|-----------------|------------|
| LAND-USE | 20-22 may | 19 | Gent (B) | Workshop Land Resource Evaluation: Soil mapping of EEC countries | R. TAVERNIER | 7.500 |
| AGRIMED | 7-9 may | 30 | Toulouse (F) | Seminar Grandes cultures : methodologie et systemes de culture | M. MARTY | 18.000 |
| | 19-21 may | 60 | Rome (I) | Seminar grandes cultures production (céréales, oléagineux, fourrages) | MARIANI | 20.000 |
| EFFLUENTS from LIVESTOCK | 20-23 may | 52 | Wexford (IRL) | Workshop on nitrogen losses and surface run-off | J.C. BROGAN | 12.500 |
| BEEF PRODUCTION | 27-29 may | 35 | Lelystad (NL) | Seminar : The methodology of feed-stuffs analyses | A.J.H. VAN ES | 13.000 |

| Programme | Date | Number of participants | Place | Titel | Local organiser | Cost (EUA) |
|--------------------------|------------|------------------------|----------------------|---|-----------------|------------|
| AGRIMED | 2-6 june | 25 | Scafati (I) Lecce | Expert group "Tabacs orientaux" | E. MARCELLI | 12.000 |
| EFFLUENTS FROM LIVESTOCK | 10-13 june | 55 | Haren (NL) | Seminar on phosphorus in sewage sludge and animal waste slurries | S. DE HAAN | 12.500 |
| ANIMAL PATHOLOGY | 3-5 june | 16 | Lelystad (NL) | Scientific workshop : | D.J. ELLENS | 4.000 |
| | 23 june | 10 | Brussels | Expert group of the protection of the young animal 1. Coordination programme 1981-83 2. Common programme : progress reports | J. CONNELL | 3.250 |
| | 24 june | 12 | Brussels | Expert group communicable diseases 1. Coordination 1981-83, 2. Common research 1982-83 | J. CONNELL | 3.000 |

| Programme | Date | Number of participants | Place | Titel | Local organiser | Cost (EUA) |
|--------------------|------------|------------------------|------------------------|---|-----------------|------------|
| | 27 june | 13 | Brussels | Expert group bovine leukosis : coordination and research 1981-83 | J. CONNELL | 4.000 |
| BEEF PRODUCTION | 10-12 june | 32 | Castanet Tolosan (F) | Seminar "Muscle hypertrophy of genetic origin and its utilisation to improve beef production" | F. MENISSIER | 10.000 |
| BIOLOGICAL CONTROL | 12-13 june | 12 | Catalonia-Alicante (E) | Workshop "Etat d'avancement des essais pilotes en plein champ sur la lutte intégrée en agrumiculture" | M. NUCIFORA | 3.000 |
| PLANT PROTEIN | 17-19 june | 36 | Merelbeke (B) | Workshop : Breeding for increased efficiency of nitrogen utilisation; competition between grasses and legumes + programme committee meeting | A. ANDRIES | 12.000 |
| | 24-26 june | 37 | wageningen (NL) | Seminar on reproductive physiology, yield and idio-type in grain legumes; also field bean trials | DANTUMA | 11.000 |

| Programme | Date | Number of participants | Place | Titel | Local organiser | Cost (EUA) |
|------------------|------------|------------------------|------------------|---|-------------------|------------|
| AGRIMED | 1 July | 15 | Brussels | Expert Group Group- des cultures vins- moûts concentrés | R. TROISGROS | 3.000 |
| | 2 July | 20 | Brussels | Agrimed Programme Committee | R. TROISGROS | 5.000 |
| ANIMAL PATHOLOGY | 3 July | 12 | Brussels | Animal Pathology Programme Commit- tee | J. CONNELL | 4.000 |
| BEEF PRODUCTION | 10-11 July | 20 | Roskilde (DK) | Scientific Working group : the predic- tion of comparative retail value of beef carcasses from simple measurements | K. KOUSGAARD | 8.000 |
| | 16 July | 15 | Brussels | Scientific working Group : Bacterio- logical quality of beef carcasses | T.A. ROBERTS | 6.000 |
| | 27-28 July | 26 | Wageningen (NL) | International bovine lymphocyte Antigen workshop | R.L. SPOONER | 9.750 |
| ANIMAL WELFARE | 22-23 July | 18 | Brussels | Scientific working Group Poultry Wel- fare Research Pro- gramme | J. CONNELL | Poste 2500 |
| AGRO-FOOD | 1 July | 14 | Brussels | Agro-Food Program- me Committee | J. DEHANDSCHUTTER | 4.500 |
| PLANT PROTEIN | 8-10 July | 46 | Braunschweig (D) | Seminar : Produc- tion and utiliza- tion of protein in oil seed crops | M. DAMBROTH | 15.000 |

| Programme | Date | Number of participants | Place | Titel | Local organiser | Cost (EUA) |
|--------------------|-----------------|------------------------|-------------------|---|-----------------|------------|
| LAND-USE | 8-9 september | 18 | Brussels | Workshop on forage map of Europe | A. PRENDERGAST | 4.500 |
| | 23-25 september | 14 | Brussels | 1. Land Resource Evaluation Workshop 2. Expert group on integrated rural development + programme Committee meeting | A. PRENDERGAST | 16.500 |
| AGRIMED | 23-24 september | 20 | Montpellier (F) | Réunion production de semences | M. GRIGNAC | 6.250 |
| ANIMAL PATHOLOGY | 9-11 september | 36 | Bristol (UK) | Seminar : Protection of the young animal - mucosal immunity | F.J. BOURNE | 15.000 |
| BEEF PRODUCTION | 25-26 september | 24 | Melle-Goetrode(B) | Beef production programme Committee + expert group on rearing quality | C. BOUCQUE. | 12.000 |
| BIOLOGICAL CONTROL | 16-17 september | 12 | Firenze (I) | Meeting on : Etat d'avancement des essais pilotes en plein champ sur la lutte intégrée en pléiculture | R. ZOCCHI | 4.000 |
| | 24 september | 11 | Brussels | Meeting on biological control of plant pathogens present status and perspectives | A. PIAVAUX | 4.250 |
| | 25-26 september | 14 | Brussels | Programme Committee meeting | A. PIAVAUX | 6.000 |

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| Programme | Date | Number of participants | Place | Titel | Local organiser | Cost (EUA) |
|---------------|-----------------|------------------------|--------------|---|-------------------|------------|
| GENE BANK | 9-10 september | 16 | Rilland (NL) | Descriptors and descriptor states in grasses | D.J. GLAS | 4.000 |
| | 23-24 september | 14 | Brussels | Programme Committee meeting | J. DEHANDSCHUTTER | 4.000 |
| PLANT PROTEIN | 1-4 september | 36 | Norwich (UK) | Workshop on Rhizobium and nitrogen nutrition of legumes | B. SNOAD | 13.000 |
| | | | | | | |

12.

VI-F-4 Programme of meetings in 1980 : OCTOBER

| Programme | Date | Number of participants | Place | Titel | Local organiser | Cost (EUA) |
|--------------------------|---------------|------------------------|-----------------|--|------------------------|------------|
| LAND-USE | 13-17 october | 40 | Wageningen (NL) | Seminar on Soil Degradation | G.A. DOOSTERBAAN | 30.000 |
| AGRIMED | 7 october | 22 | Brussels | Meeting Agrimed Grandes cultures | R. TROISGROS | 10.000 |
| | 8 october | 15 | Brussels | Meeting Agrimed Irrigation localisée | R. TROISGROS | 4.000 |
| | 20 october | 50 | Salamanca (E) | Meeting Agrimed ovins-forêts-pâturages | M. THERIEZ | 10.000 |
| EFFLUENTS from LIVESTOCK | 20-22 october | 30 | Perugia (I) | Meeting Agrimed Grandes cultures - techniques culturales | Prof. BONCIARELLI | 8.750 |
| | 8-10 october | 57 | Bordeaux (F) | EEC workshop on problems encountered with Copper | C. JUSTE | 25.000 |
| ANIMAL PATHOLOGY | 20-24 october | 13 | Madrid (E) | Training Course on African Swine Fever | Prof. SANCHEZ - BOUTJA | 9.700 |
| ANIMAL WELFARE | 7-8 october | 37 | Brussels | Seminar on the problem of dark cutting in beef | J. CONNELL | Poste 2500 |

| Programme | Date | Number of participants | Place | Titel | Local organiser | Cost (EUA) |
|--------------------|--------------|------------------------|------------------|---|-----------------|------------|
| BIOLOGICAL CONTROL | 1-2 october | 12 | Braunschweig (D) | Meeting on the reduction of the use of chemicals against noxious weeds | F. SCHUTTE | 5.500 |
| | 9-10 october | 11 | Montfavet (F) | Meeting on: résultats et discussion des méthodes d'échantillonnage et élaboration des modèles pour les insectes ravageurs du chou | J. MISSONNIER | 5.500 |

Programme of meetings in 1980 : NOVEMBER

VI-F-4

| Programme | Date | Number of participants | Place | Titel | Local organiser | Cost (EUA) |
|--------------------|----------------|------------------------|------------------|--|-----------------|------------|
| ANIMAL PATHOLOGY | 4-6 november | 30 | Hannover (D) | Scientific workshop on communicable diseases resulting from manures | H.J. HAPKE | 20.000 |
| | 5-7 november | 80 | Bologna (I) | 4th International Symposium on Bovine Leukosis | O.C. STRAUS | 17.000 |
| ANIMAL WELFARE | 24 november | 25 | Brussels | Expert group Animal Welfare especially Poultry | J. CONNELL | 5.500 |
| | 25-26 november | 32 | Brussels | Seminar "The welfare of pigs" | J. CONNELL | Poste 2500 |
| BIOLOGICAL CONTROL | 4-6 november | 13 | Corsica Sardinia | Standardisation des méthodes biologiques sur la lutte intégrée en agrumiculture | R. PROTA | 9.000 |
| | 20-21 november | 10 | Dossenheim (D) | Expert group meeting : progress on production and application of viral pesticides against orchard tortricids | E. DICKLER | 7.000 |
| | 27-28 november | 21 | Harpenden (UK) | Meeting on forecasting pests and diseases as a means of avoiding unnecessary applications of pesticides on cereals | T. LEWIS | 12.000 |

| Programme | Date | Number of participants | Place | Titel | Local organiser | Cost (EUA) |
|-----------|----------------|------------------------|----------|--|-------------------|------------|
| AGRO-FOOD | 12-14 november | 30 | Brussels | Meeting of the project leaders + Programme Committee meeting | J. DEHANDSCHUTTER | 17.000 |

VI-f-4 Programme of meetings in 1980 : DECEMBER

| Programme | Date | Number of participants | Place | Titel | Local organiser | Cost (EUA) |
|--------------------|----------------|------------------------|------------------|--|----------------------------|------------|
| AGRIMED | 2-4 december | 75 | Saragossa (E) | Agrimed ovins : croisement industriel avec les races locales méditerranéennes | M. MUTCATA | 23.500 |
| | 10 december | 18 | Brussels | Agrimed Programme Committee meeting | R. TROISGROS | 9.000 |
| ANIMAL PATHOLOGY | 1-3 december | 30 | Lisbonna (P) | Scientific work-shop 1. ELISA 2. Methodology of the diagnosis of African Swine Fever | F.L. DE CASTRO PORTUGAL | 24.000 |
| BEEF PRODUCTION | 8-10 december | 19 | Rome (I) | The cull cow as a beef producer | A. ROMITA | 12.000 |
| BIOLOGICAL CONTROL | 10-11 december | 12 | Brussels | Discussions on coordination of investigations concerning carrot fly control | A. PIAVAUX | 7.000 |
| GENE BANK | 3-4 december | 9 | Brussels | Descriptors and descriptor states in fruit trees | J. DEHANDSCHUTTER | 5.000 |
| | 9-11 december | 25 | Braunschweig (D) | Descriptors and descriptor states in cereals | L. SEIDEWITZ | 18.000 |

| Programme | Date | Number of participants | Place | Titel | Local organiser | Cost (EUA) |
|---|-------------|------------------------|----------|-----------------------------|-----------------|------------|
| PLANT PROTEIN | 10 december | 12 | Brussels | Programme Committee meeting | G. PRENDERGAST | 7.500 |
| NOMBRE TOTAL DE REUNIONS EN 1980 : 84 DONT 48 A L'EXTERIEUR ET 36 A BRUXELLES | | | | | | |

| Date | Destination | Lieu de provenance | Noms | Coût estimé (UCE) |
|-----------------------|--|--|----------------------------------|-------------------|
| 15 janvier | LONDON (Fitch) | Gand Dublin | TAVERNIER COLE | 250 |
| 30 janvier | BRUXELLES | Wageningen Dublin | VAN DER PLAS COLE | 500 |
| 18 février | WAGENINGEN (Van der Plas) | Versailles Bonn | CONWAY DEFFONTAINES LAEPEL | 500 |
| 21-22 mai | GENT | Wageningen | BEEK | 200 |
| 20-22 mai | GENT | Wexford (Irl) | J. LEE | 300 |
| 10 jours en juillet | WAGENINGEN (Dr. Oosterbaan) VERSAILLES (Dr. Jamagne) | Dublin (An Foras Taluntais) | M. GARDINER | 1.000 |
| 23-24 septembre | CEE-Bruxelles | Institut for land and water management research WAGENINGEN | BEEK | 150 |
| 17 jours en novembre | Différents centres "An Foras Taluntais" IRLANDE | Institut für Strukturfor- schung der Bundesforschung- anstalt für Landwirtschaft BRAUNSCHWEIG | W. PETERS V. LANGENDORF | 5.000 |
| 6-7 novembre | - Geologisch inst. GENT - CEE BRUXELLES | MAFF READING (UK) | D.B.S. FITCH | 400 |
| 12 jours fin novembre | - FAO ROME - Universités FLORENCE BOLOGNE - CNRA VERSAILLES | An Foras Taluntais WEXFORD (Ireland) | J. LEE | 1.500 |

| Date | Destination | Lieu de provenance | Noms | Coût estimé (UCE) |
|----------------------|--|--|-------------|-------------------|
| 10 jours en décembre | <ul style="list-style-type: none"> - Field drainage experim- ental Unit - Cambridge - Agricultural Engineer- ring Station - SILSOE - Dr. Van Someren - WAGENINGEN | An Foras Taluntais DUBLIN (Ireland) | M.L. GALVIN | 900 |
| | | | | |

| Date | Destination | Lieu de provenance | Noms | Coût estimé (UCF) |
|---|--|---|------------------------|-------------------|
| 6 mois (1er mars - 1er septembre) | GENEVA (USA) Plant pathology laboratory | INRA - ANGERS | Y. LESPINASSE | 2.700 |
| 14-17 avril | WAGENINGEN (Plant protection service) | INRA - ANGERS | B. THIBAUT LECOMTE | 1.000 |
| 22-24 avril | SARAGOSSA (Centre Inia) | OLMEDO (Sassari) Institut zootechnique | R. CARTA | 330 |
| 2-6 juin | - Laboratory of plant protection service WAGENINGEN - Biologische Bundes- anstalt HEIKENDORF/KITZBERG | INRA - Station de patholo- gie végétale - ANGERS | J.P. PAULIN | 1.800 |
| 23-27 juin | - Laboratory of plant protection service WAGENINGEN | INRA - Station de patholo- gie végétale - ANGERS | B. THIBAUT A. CADIC | |
| 3-4 septembre | - Dispositif expérimental sur les alpages des communes de Thiranne Hau- te et La Valette | INRA - PARIS | R. FEVRIER | 600 |

| Date | Destination | Lieu de provenance | Noms | Coût estimé (UCE) |
|------------------------------|---|--|---|-------------------|
| 7-12 septembre | DUBLIN (Ir.) Symposium ISHS | GEMBLOUX (B) ARSLEV (DK) BELLEGARDE (F) MORET S/LOING (F) PORTICI (It) URBINO (It) LUXEMBOURG WAGENINGEN (NL) WAGENINGEN (NL) HANNOVER (RFA) SILSOE (UK) | A. NISEN M.G. AMSEN M. WACQUANT M.Y. CORMARY A. BORRELLI C. STANGHELLINI L. WIETOR W.P. MULDER G.P.A. BOT VON ZABELTITZ B. BAILEY | 6.000 |
| 21-27 septembre | PATRAS (Grèce) v ième congrès de l'Union phytopathologie méditerranéenne | INRA ANTIBES (FR) | Melle C. ANDREOLI | 1.200 |
| 7 jours au mois d'octobre | - Istituto di Agronomia generale e coltivazioni Erbacee - Università di BOLOGNA (Prof. Toderi) - Séminaire Agrimed Gran- des cultures - PERUGIA - Istituto di Agronomia generale - Università di PALERMO (Prof. Locascio) | ARC - WANTAGE (UK) | R.G. CANNELL | 1.000 |

ECHANGE DE CHERCHEURS : EFFLUENTS 1980

VI-f-4

| Date | Destination | Lieu de provenance | Noms | Coût estimé (UCE) |
|------------|---------------|--------------------|---------------|-------------------|
| 18-19 mars | BORDEAUX (FR) | LONDON (ARC) | J.K.R. GASSER | 900 |
| 22 avril | HAREN (NL) | ARNHEM (NL) | J.H. VOORBURG | 100 |
| | | | | |

| Date | Destination | Lieu de provenance | Noms | Coût estimé (UCE) |
|--------------------------------|--|---|--|-------------------|
| 21-22 janvier | HANNOVRE puis BRUXELLES | LIVERPOOL | R.J. WALTON | 500 |
| 18-19 mars | BOLOGNE (I) | TÜBINGEN (RFA) | O. STRAUB | |
| 15 jours en juin | Laboratoire du Prof. C. Sanchez-Botija (INIA) MADRID | SASSARI Istituto Profilatrico Sperimentale | P. COSSU A. FIRINI | 2.500 |
| 17-20 novembre | Animal virus research Institute - PIRBRIGHT (Surrey - UK) | Istituto zooprofilattico NAPOLI - PALERMO - PADOVA - BRESCIA | T. CORSALINI P. AIELLO C. TURINI D. DE SIMONE | 4.000 |
| 16 décembre | CEE-BRUXELLES | - ILOB - WAGENINGEN (NL) - An Foras Taluntais - Dunsany (Irl) | E.J. VAN WEERDEN J.F. ROCHE | 400 |
| 7 jours au mois de décembre | Greek Ministry of agricul- ture virus laboratory - ATHENES | Animal Virus Research Institute - PIRBRIGHT (UK) | Dr. HERNIMAN Dr. GUNN | 600 |

| Date | Destination | Lieu de provenance | Noms | Coût estimé (UCE) |
|-----------------------------------|---|--|---|-------------------|
| 23 janvier | BRUXELLES | BRISTOL | D.N. RHODES | 500 |
| 26 février | BRUXELLES | KULMBACH (RFA) ZEIST (NL) BRISTOL (UK) | L. SCHÖN H. DE BOER J.M. HARRIES | 1.500 |
| 2-3 juin | COPENHAGEN (DK) (chez Prof. Bech Andersen) | MILTON KEYNES (UK) (Meat and Livestock Com- mission) | A. CUTHERTSON D. MILES | 1.000 |
| 16-17 juin | JOUY-EN-JOSAS (FR) | EDINBURGH Animal Breeding Research Organisation | KING SMITH HINKS TAYLOR THIESSEN WEBB | 1.500 |
| 1er août - 1er octobre | DUBLIN An Foras Taluntais | COPENHAGEN | L.G. CHRISTENSEN | 3.000 |
| 17 octobre | INRA - THEIX (F) | - INRA - BEAUMONT (F) - KULMBACH (RFA) - MRI - BRISTOL (UK) - UTRECHT (NL) - CASTLEKNOCK (IRL) - GONTRODE (B) - ROSKILDE (DK) - ROME (IT) | C. VALIN MONICKEL A.A. TAYLOR G. VAN LOGTESTYN P.V. TARRANT CASTEELS LIS BUCHTER A. ROMITA | 4.250 |
| 10 novembre 80 - 10 janvier 81 | MEAT research Institute LANGFORD BRISTOL (UK) (Labo Dr. Etherington) | Université de BORDEAUX TALENCE (F) | P. COTTIN | 2.000 |

| Date | Destination | Lieu de provenance | Noms | Coût estimé (UCE) |
|---------------------|--|---|---------------------------------|-------------------|
| 5 jours en décembre | <ul style="list-style-type: none"> - Animal Research Station CAMBRIDGE (UK) - Physiology Research Unit Ruislip (UK) - Hormone Assay Unit WORCESTER (UK) | Agricultural Institute GALWAY (Ireland) | J.M. SREENAN | 500 |
| 22 décembre | CEE - BRUXELLES | <ul style="list-style-type: none"> - Instituut voor Veeteelt- kundig onderzoek "Schoon- oord" ZEIST (NL) - Meat and Livestock Commis- sion BEETCHLEY (UK) | H. DE BOER H. HARRINGTON | 400 |

| Date | Destination | Lieu de provenance | Noms | Coût estimé (UCE) |
|------------------------------|--|--|------------|-------------------|
| 10 novembre - 10 décembre | Station Expérimentale du Magneraud SURGERES (F) (chez Prof. J.M. Faure) | A.R.C. Poultry Research Centre EDINGBURGH (UK) | R.B. JONES | 1.000 |
| | | | | |

| Date | Destination | Lieu de provenance | Noms | Coût estimé (UCE) |
|------------------|--------------------------------|--------------------|---------------|-------------------|
| 8 jours en avril | INRA - VERSAILLES - LE RHEU | GÖTTINGEN | G. SIEBGRASSE | 1.000 |

ECHANGE DE CHERCHEURS : GENE BANK 1980

VI-F-4

| Date | Destination | Lieu de provenance | Noms | Coût estimé (UCE) |
|------------|-------------------|---|--|-------------------|
| 10-14 mars | WELLESBOURNE (UK) | BOLOGNA (IT) MIDLOTHIAN (UK) WAGENINGEN WAGENINGEN | CONTI MAC FARLANE ROE LOFSEN TOXOPEUS | 3.250 |

| Date | Destination | Lieu de provenance | Noms | coût estimé (UCE) |
|---------|-------------|--------------------|-----------------|-------------------|
| juillet | ROUMANIE | WRECCLESHAM (UK) | D.A.A. BURDEKIN | 1.300 |

| Date | Destination | Lieu de provenance | Noms | Coût estimé (UCE) |
|------------------------|--|---|--|-------------------|
| 24 avril | STUTTART - HOHENHEIM (chez Prof. von Kittlitz) | ARNHEM (NL) WEXFORD (IRL) OLDENBURG (RFA) DIJON (FR) WAGENINGEN (NL) GÖTTINGEN (RFA) | VOORBURG BROGAN VETTER CATROUX DANTUMA FRAUEN | 1.000 |
| 1-8 juin | LONDON, CAMBRIDGE, BRIS- TOL, STERLING | LUSIGNAN | J. GONDRAN | 650 |
| 13 jours en juin | Institut für Grünlandwirt- schaft, Futterbau und Futterkonservierung - BRAUNSCHWEIG | Hurley (UK) Grassland Research Institute | R.F. WILSON | 900 |
| 5 jours en juin | An Foras Taluntais CARLOW et JOHNSTOWN CASTLE WEXFORD | Hurley Grassland Research Institute | R.J. WILKINS J. MORRISON | 900 |
| 9 jours en juillet | DIJON (INRA; Dr. Picard) RENNES (INRA; Dr. Berthele) | GÖTTINGEN Université | M. FRAUEN | 800 |
| 9 jours en août | WAGENINGEN (Centre for agrobiological Research) | WEXFORD An Foras Taluntais | T.F. GATELY | 1.000 |
| 3 jours en septembre | Atomic Energy Station RISØ (DK) | Rothamsted Experimental Station HARPENDEN (UK) | S.W.J. BRIGHT | 700 |
| 2 jours en septembre | Société France Luzerne CHALONS-SUR-MARNE | An Foras Taluntais CASTLEKNOCK (IRL) | M.F. MAGUIRE | 600 |
| 7 jours en octobre | HEIDELBERG (RFA) FREIBURG (RFA) | Rothamsted Experimental Station HARPENDEN (UK) | B.J. MIFLIN M. KREIS | 1.500 |
| Tout le mois d'octobre | NORWICH (UK) John Innes Institute (Prof. B. Snoad) | PORTICI (IT) | L. FRUSCIANTE | 2.100 |

| Date | Destination | Lieu de provenance | Noms | Coût estimé (UCE) |
|---------------------|---|--|------------------------------|-------------------|
| 7 jours en novembre | HARPENDEN (UK) Rothamsted Experimental Station | ROSKILDE (DK) Risø National Laboratory | Melle H. GIESE | 600 |
| 6 jours en novembre | CORDOBA (E) Département de Génétique de l'Université | BARI (IT) Département de génétique de l'Université | L. RICCIARDI | 900 |
| 7 jours en novembre | LODI (IT) Istituto Sperimentale per la culture foraggere | LUSIGNAN (F) INRA-Station d'amélioration des plantes fourragères | G. GENIER | 900 |
| 5 jours en novembre | CAMBRIDGE (UK) Plant Breeding Institute | PORTICI (IT) Département de génétique végétale de l'Université | A. ERRICO | 1.000 |
| 4 jours en novembre | LUSIGNAN (F) INRA-Station d'amélioration des plantes fourragères | PERUGIA (IT) Université | M. FALCINELLI F. VERONESI | 1.400 |
| 5 jours en novembre | TOULOUSE (F) INRA | PADOVA (IT) Université - Institut d'agronomie | G. MOSCA | 800 |
| 5 jours en décembre | COPENHAGEN (DK) National Institute of Ani- mal Science, Physiology and chemistry | MELLE-GONTRODE (B) | W. EECKHOUT | 600 |
| 4 jours en décembre | National Institute of Ani- mal Science - COPENHAGEN (DK) | Grassland Research Institu- te - HURLEY (UK) | M.R.A. TERRY | 800 |

ECHANGE DE CHERCHEURS : PROTEINES 1980

VI-F-4

| Date | Destination | Lieu de provenance | Noms | Coût estimé (UCE) |
|--|--|---|---|-------------------|
| 5 jours en décembre | INRA - Station de génétique VERSAILLES (FR) | National vegetable research station WELLESBOURNE (UK) | R.C. HARDWICK J.D. TAYLOR G.A. WALKEY | 2.100 |
| <p>TOTAL :</p> <p>59 échanges de chercheurs un coût estimé total de (soit 113 déplacements) pour 75.280 UCE</p> | | | | |