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REPORT TO THE COUNCIL ON THE PRODUCTION REFUND SYSTEM FOR USERS OF STARCH MANUFACTURED FROM CEREALS, RICE AND POTATOES

(presented by the Commission)

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I. INTRODUCTION

1. The need for the report

Council Regulation (EEC) No 1009/86, Article 7, obliges the Commission to submit a report to the Council on the state of application in the different Member States of :

i) the production refund system in the cereals and rice sectors, and,

ii)the production refund system applicable to potato starch,

before 1 April 1989.

Council Regulation (EEC) No 1008/86, Article 2,3, requires the Council to decide before 1 April 1989, on the measures to be applied from the beginning of the 1989/90 marketing year, with particular regard to the minimum price paid by potato starch manufacturers to potato producers, and the premium paid to potato starch manufacturers.

2. Background to the new regime

The sector in question is complex. It concerns, on the one hand, different raw materials (maize, wheat, rice and potatoes) and on the other hand different user industries (food, biotechnology, chemicals, textiles, paper, etc). Sugar also constitutes in principal an alternative raw material when used in the chemical industry alone, and as such is subject to a seperate refund system linked to the sugar world market (the general rules for which are set out in Council Regulation (EEC) No 1010/86).

A seperate report covering the arrangements concerning the production refund system for sugar in the chemical industry will be submitted to the Council before the end of the 1989/90 marketing year, (as required by Council regulation (EEC) No 1010/86).

Prior to 1 July 1986, a subsidy was payable only to the production of starch from certain cereals or potatoes regardless of their end use. This subsidy is being phased out over a 3 year transitional period as follows :

(ECU/t)

Product	1986/87	1987/88	1988/89
Maize starch	15	10	5
Wheat starch	20	14	7
Rice starch	18	12	6
Potato starch	24	16	8

As a result, this regime will have no direct effect from 1 July 1989.

An anomaly of the production refund system prior to 1 July 1986 was that more than half of the products incorporating starch are protected against third country imports by a levy on the cereal component (mainly food products), whereas other products are not (mainly non-food products).

In addition, in its paper on Biotechnology within the Community (COM(83) 672 of 29.9.1983), the Commission underlined the obstacle to the development and commercialization of new biotechnological products as being the costs of agricultural raw materials used by Community industries relative to their competition on the world market.

In order to remove the economically unjustifiable anomaly inherent in the old regime and to promote the development of biotechnology and other new starch using industries, from 1 July 1986 refunds have been granted to users of starch extracted from wheat, maize, rice or potatoes, or certain products derived from these, in the preparation of certain insufficiently protected end products.

By limiting the attraction of refunds to starches made from these raw materials, the possibility of granting refund in respect of starches made from levy-free imported raw materials (manioc and sweet potatoes)is avoided. It should be noted that these levy free imports could result in increased manufacture of starch based on imported manioc and sweet potatoes destined where possible for the food sector, to the detriment of indigenous starches because of the former's clear price advantages.

Thus, the principal aim of the new regime is to ensure that prices are competitive with those of starches produced in third countries and imported in the form of products covered by import arrangements which provide insufficient protection for Community products.

3. Details of the new regime

The list of eligible end products was compiled taking into account :

a) the level of competition with third countries, and the degree of protection against such competition afforded by the CAP or the CCT;

b) the progress made in the technology of starch manufacture and utilization;

c) the degree to which starch is incorporated in the final product and/or the relative value of starch in the final product and/or the importance of the product as an outlet for starch in the light of competition with other products.

The refunds are fixed for each of the three month periods beginning 1 July, 1 October, 1 January and 1 April and may be changed during the course of each period in response to a significant change in the market prices for maize and/or wheat in the Community and/or on the world market.

The rate of the refund is calculated on the basis of the difference between the Buying-in Price (1) for maize applicable in the first month of each period, and the average CIF prices used for the calculation of the import levy for maize in the first two months and the first 15 days of the third month of the three month period preceding the first day of each period. This difference is multiplied by a coefficient of 1,6 (which represents the technical relationship between maize and maize starch). As a consequence of the compromise reached in the Council at the beginning of 1986, the result of this calculation is applied to all starches independant of their raw material.

In the absence of a common organization of the market for potatoes, a minimum price is payable to the potato producer by the potato starch manufacturer upon delivery. This minimum price is determined on the basis of the quantity of potatoes supplied to the starch manufacturer, and the starch content of the potatoes.

On the condition that the potato starch manufacturer pays this minimum price to the potato producer, the starch producer qualifies for the payment by the Community of a premium equal to 18,70 ECU per tonne of potato starch. (This rate of premium, originally fixed for the marketing year 1983/1984 has been maintained until the 1988/89 marketing year inclusive). The rationale underlying the payment of this premium is that, for structural reasons particular to the potato starch industry, (for example, additional costs incurred in pollution prevention, limited co-products and the shortness of the season for potatoes) a corrective provision in favour of that industry is justifiable.

The granting of the refund for a product may not cause distortion in the conditions of competition with other products which are not eligible for such refund.

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(1) Before 1 July 1988, the Intervention Price for maize was used. From this date, the Buying-in Price for maize was used because of the modification of the intervention system and the subsequent change in market conditions.

II. IMPACT OF THE NEW REGIME

1. Impact on the users

The objective of the new regime in relation to the desired impact on users is that the refund should enable the user to obtain starch and certain derived products at a price lower than would result from the application of the rules of the CAP. More specifically, it is intended that starch should be made available to beneficiaries under conditions similar to those available to competing industries which allow them to compete with products imported from the world market.

The rationale that brought the regime into being remains valid. Third country manufacturers of certain industrial products derived from agricultural raw materials purchased at world prices can export to the Community without paying levies on the raw material component. Without some compensation for the high cereal prices the Community manufacturers of these products are at a disadvantage in these less protected markets.

The regime has been successful in bringing the EC starch price to a competitive level in the Community.

The budgetary costs associated with this policy (expressed per tonne of cereals raw material) are less than they would be if the cereals components were to exported at the beginning of 1989 the export refund per tonne of maize was 80 ECU/t, and the production refund expressed per tonne of maize was 60 ECU/t.

Since the new regime has been operational, consumption of starch in the sectors eligible for refund has increased.

From the data describing starch use presented in the Annexes, the following conclusions can be drawn :

a) around 1,9 million tonnes of starch is used to manufacture eligible end products (i.e. over 40 % of total starch production) which is composed in cereal raw material terms of 1,6 million tonnes of maize, 0,5 million tonnes of wheat and 3,2 million tonnes of potatoes.

b) The relative importance of end users under the scheme is as follows :

Product		(%)
1. paper and board		44
2. artificial plastics resin, polymers, esthers, etc.	25	
3. organic chemicals		11
4. glues, enzymes, etc.	10	
5. pharmaceutical products		6
6. not otherwise mentioned		3
7. cotton	1	

Evidence suggests that the market share has been secured at a level that would not have been achievable without the refund. However, there appears to have been a differential effect depending on the importance of starch in the manufacturing process and the value of the final product. There is a continuum of impact extending from those to whom the refund is very important to those to whom the refund is no more than a useful additional source of revenue.

As far as the paper and board industry is concerned the refund has obviously reduced cost and improved the Community industries competitiveness vis a vis third countries, but it has been of relatively minor significance over the duration of the new regime because of the other major changes which have been taking place in the industry. The industry has been through a period of rapid growth in demand and also there has been a marked increase in the price of pulp, its principal raw material. Overall the starch in paper products represents a range of costs extending from only 1 to 3 per cent. Although the refund is therefore a small proportion of overall costs, in view of the rise in pulp prices there is some pressure on margins and the starch refunds contribute towards the deviation of this. In some cases, where margins are tight the refund can be critical, in other cases, where margins are good, the refund is less critical.

In the chemical and pharmaceuticals industry there has been a variable impact. Again, the impact depends on the importance of starch and the extent to which they are protected. Some depend very heavily on the refund and it is critical to their activities (e.g. vitamin C, organic acids, amino acids, penicillin); others (such as higher value pharmaceutical products) are not concerned to any great extent. However, there is more than ample evidence to suggest that the competitiveness of some commodity chemicals production would be affected by the elimination of production refunds to the extent that some companies might cease their production or re-locate outside the Community to supply the EEC market.

In the other industries (eg textiles and adhesives) the same applies : to some it is critical, to others it is less important.

It has been argued that the availability of starch and starch derivatives at competitive levels would encourage users of starch to remain in the EC. This would consolidate the market opportunity for industrial use of starch and derivatives and encourage new carbohydrate-using investments to the EC.

Evidence of recent decisions which were affected by the regime has not yet been found. However, this is not surprising since most investments are long term (anything from 5 to 15 years) and the industry appears to have been uncertain as regards the EC's long term commitment to the regime. It seems likely that future investment decisions will be influenced by a long term commitment to the refund.

2. Impact on the starch manufacturers

Whilst there are different physical characteristics associated with each starch source, there is no single and permanent parameter capable of defining the "balance" between them in terms of intrinsic qualities, co-product revenue (by virtue of the volatility of this) nor of other structural characteristics (by virtue of the great difficulties of comparing and measuring these).

It is reasonable to expect that the starch regime itself is implemented with no obvious discrimination between one starch source and another.

The market share of each starch source under the new system is as follows :

	(%)
maize	52
potatoes	35
wheat	13

Starch manufactured from rice represents a very small part of the entire industry (less than 1 % of total starch production). Rice meets a specific technical requirement and fills a small market niche. Its lowly market share reveals its disadvantages as an economic starch source. Its structural problems have gone unnoticed because there is no history of rice growing for starch manufacture and therefore there is no dependent production sector. However, there appear to be no special problems arising with relation to the rice arrangements.

With the exception of starch produced from rice, starch is largely interchangeable irrespective of its raw material (wheat, maize and potatoes for the purposes of the regime under discussion). For this reason it continues to be appropriate to assimilate the price of the potato raw material (which does not benefit from a common organisation of the market) with that of the most significant alternative raw material, namely maize. The means of achieving this assimilation has been the fixation of a minimum price to potato producers whose produce is destined for use in the starch industry.

In order, primarily, to compensate the potato starch manufacturer for the additional expense incurred by the structural parameters associated with potato starch production (2) a premium is granted to the potato starch manufacturer. At the same time this ensures that the minimum price has been paid to potato producers who sell their produce to the starch industry (as outlined in section I,3).

The effect of employing the minimum price and premium mechanisms seems to have been largely satisfactory, as there appears to be no disequilibrium between the potato and maize starch sectors.

The approach of the new regime in considering that starch is largely interchangeable as regards its end use irrespective of its major source, and that compensation should not be made in respect of the natural parameters associated with each major raw material, is appropriately reflected in the use of a single refund calculation (as detailed in section I.3).

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(2) The level of appropriate compensation is difficult to quantify as it varies regionally with particular regard to harvest quality, effluent disposal costs and structure of the production plant.

Overall, the reform of 1986 seems to have worked reasonably well as far as the starch manufacturers are concerned. Because of the wide range of other intervening factors (eg yield, location, etc.), it is impossible to quantify with any degree of precision the effect of the new regime on individual gross margins.

However, it is clear that the wheat starch industry has, as a result of the new arrangements, lost some advantages achieved prior to July 1986, in particular, the loss of the old (advantagous) production refund particular to wheat.

Additional disbenefits to the wheat starch industry have arisen from the over supply brought about by increased production of wheat starch over the last five years due firstly to the anticipated benefit accrued from the production of its high value co-product, vital wheat gluten, and secondly, to its perceived competitive advantage over maize starch concurrent with technical improvements in wheat starch production. In the event, the rationale underlying the increased production of wheat starch did not completely result in the desired effect and in some cases worsened the competitive position of existing wheat starch factories. One of the reasons for this outcome lies in the autonomous market forces associated with co-products.

However, this development was coincidental, and not consequential to the new arrangements. There is no evidence to suggest that a disequilibrium has arisen between the wheat and maize starch sectors as a result of the new regime.

Wheat gluten representes a high value co-product to wheat starch manufacture, and is a significant factor in the economic viability of the sector. It should be noted, however, that the market price of wheat gluten varies considerably as a function of harvest quality, demand etc., and therefore effects the profitability of wheat starchers.

III. RECOMMENDATION

1. Continuation of the end user production refund regime

The impact of the regime on the end user industry has been satisfactory. In order :

a) to consolidate the position of Community end users vis-à-vis their third country competition, and,

b) to encourage users of starch to remain in the Community and thus secure a growing market opportunity for industrial use of starch and derivatives, and further encourage new carbohydrate-using investements to the EC,

the system of production refunds attracted at user level should be continued indefinitely.

2. Method of calculation of the end user production refund

The use of a single method of refund calculation for starch irrespective of its raw material should be maintained. The method ensures a non-discriminatory guarantee for the entire starch industry as far as possible.

3. Eligible end products

The Commission's Services should continue to review regularly the list of end products eligible for the refund, and make appropriate proposals for its amendment. The criteria currently used to determine eligibility should be maintained

4. Potato sector

It is recognized that there are structural disadvantages associated with the potato starch sector, particularly for potato starch manufacturers. A permanent solution to these problems in structural terms is at this stage in the regime impossible to formulate. The Commission (currently confronted with a variety of heterogeneous information) will continue to examine the question in depth, in particular whether and to what extent a structural disadvantage justifies a special premium.

In the meantime, the following arrangements should be employed for the 1989/90 marketing year.

a) Minimum Price for potatoes used in the manufacture of starch

The commitment to align the price of raw materials for the production of potato starch with those for maize starch should be continued.

In order to maintain this relationship for the 1989/90 marketing year, the minimum price for potatoes should be calculated as follows :

The minimum price for potatoes should be adapted to accomodate the adaptation of the maize institutional prices for the 1989/90 marketing year. (As the co-responsibility threshold for maize was exceeded in the 1988/89 marketing year, the Institutional prices for maize for the 1989/90 marketing year will be reduced by 3 %).

- numerically :

  a = minimum price for potatoes, 1988/89 = 264,74 ECU/t

  therefore, a - (3% x a) = 256,80 ECU/t = b;

  Thus, the minimum price for potatoes for the 1989/90 marketing year will equal <u>256,80</u> ECU/t.

b) <u>Premium paid to potato starch manufacturers</u>

The philosophy underlying the payment of the premium remains valid, as the structural parameters inherent to potato starch manufacture have not changed.

Evidence suggests that the economic relationship between the potato starch and maize starch producers has been satisfactory and has not significantly changed. On that basis the payment of the premium should continue, and should be maintained at the current level for the 1989/90 marketing year.

Thus, the potato starch premium for the 1989/90 marketing year will equal <u>18,70 ECU/t</u>.

ANNEX I

QUANTITIES OF BASIC STARCH AND STARCH DERIVED PRODUCTS UPON WHICH USER PRODUCTION REFUNDS WERE PAID
(Regulation (CEE) No 2169/86, art. 11 refers) 'New system'

EUR 11 Tonnes

Period	Maize starch	Potato starch	Rice starch	Wheat starch	Total
1-7-86/ 30-9-86	36307	39003	6	5148	80464
1-10-86/ 31-12-86	96747	86419	21	21319	204506
1-1-87/ 31-3-87	172028	148679	39	48869	369615
1-4-87/ 30-6-87	161234	116906	186	61337	339663
Year 86/87	466316	391007	252	136673	994248

EUR 11 Tonnes

1-7-87/ 30-9-87	208957	155836	81	66764	431638
1-10-87/ 31-12-87	252413	142392	90	56320	451215
1-1-88/ 31-3-88	277681	184283	60	65391	527415
1-4-88/ 30-6-88	240802	164675	160	56717	462354
Year 87/88	979853	647186	391	245192	1872622

Source: Member States

ANNEX II

USER PRODUCTION REFUNDS FOR STARCH
(EEC) Regulation 2169/86) BROKEN DOWN BY INDUSTRIAL SECTOR

1986/87 EUR 11 (Tonnes of starch)

SECTOR	MAIZE	POTATO	WHEAT	RICE	TOTAL	%
Carageenan	150	0	0	0	150	0.02
Glycerol	0	0	0	0	0	0.00
Organic chemicals	51999	39711	9375	0	101085	11.19
Pharm. products	9542	36	59	12	27084	3.00
Active agents	1271	44	119	25	1459	0.16
Glues, enzymes, etc.	13910	1161	44	29	15144	1.68
Misc. chemicals	3852	467	264	0	4583	0.51
Plastics, resins	117292	255903	19801	52	393048	43.51
Paper, board	172767	94273	88035	27	357083	39.53
Cotton	1553	2180	2	0	3735	0.41
TOTAL	391677	393791	117757	145	903370	100

1987/88 EUR 11 (Tonnes of starch)

SECTOR	MAIZE	POTATO	WHEAT	RICE	TOTAL	%
Carageenan	450	0	0	0	450	0.02
Glycerol	0	0	0	0	0	0.00
Organic chemical	167629	26720	24191	0	218540	11.08
Pharm. products	25286	274	241	13	122185	6.19
Active agents	5504	120	185	48	5857	0.30
Glues, enzymes, etc.	88713	89945	25558	47	204263	10.36
Misc. chemicals	21284	1085	2617	0	24986	1.27
Plastics, resins	192260	283295	25724	142	501421	25.42
Paper, board	382400	226861	187187	46	869126	44.06
Cotton	3954	20856	353	0	25714	1.30
TOTAL	1051620	653511	267115	296	1972542	100

Source: Member States

NB 1) The figures for Italy are only represented in the totals and are not integrated in the sectorial figures per raw material.

2) Differences exist between the totals given in Annex II and Annex I; Member States communicated the information on separate occasions.

ANNEX III

QUANTITIES OF CEREALS AND POTATO STARCH FOR WHICH STARCH PRODUCTION REFUNDS WERE PAID (EEC Regulation 2742/75 refers) 'old' system

EUR 10 (Tonnes)

YEAR	MAIZE	WHEAT	RICE	POTATO
1976/77	2881129	207462	8798	489632
1977/78	3820369	309454	10357	667413
1978/79	4118910	351489	9779	746600
1979/80	4007262	343954	10508	808898
1980/81	4122397	372044	8755	751705
1981/82	4066408	383646	8264	884025
1982/83	4318535	564310	8455	812242
1983/84	4359923	792044	9425	675930
1984/85	4239852	951926	12348	874666
1985/86	4356693	1293973	7501	1037730
1986/87*	4598260	1550912	10510	1045196
1987/88*	4163138	1811216	9892	1050314

*EUR 11 (Portugal exclusive)

QUANTITIES OF STARCH PRODUCED FROM CEREALS WHICH BENEFITTED FROM PRODUCTION REFUNDS. 'old' system including food and non-foor use

EUR 10 (Tonnes)

YEAR	MAIZE	WHEAT	RICE	POTATO	TOTAL
1976/77	1800706	103731	5713	489632	2399782
1977/78	2387731	154727	6725	667413	3216596
1978/79	2574319	175745	6350	746600	3503013
1979/80	2504539	171977	6823	808898	3492237
1980/81	2576498	186022	5685	751705	3519910
1981/82	2541505	191823	8264	884025	3625617
1982/83	2699084	282155	5490	812242	3798972
1983/84	2724952	396022	6120	675930	3803024
1984/85	2649908	475963	8018	874666	4008555
1985/86	2722933	646987	4871	1037730	4412520
1986/87*	2873913	775456	6825	1045196	4701389
1987/88*	2601961	905608	6423	1050314	4564307

*EUR 11 (Portugal exclusive)

Source: Member States

NB: 1987/88 figures excluding Italy.

ANNEX IV

COMPARISON OF QUANTITIES OF STARCH UPON WHICH REFUNDS WERE PAID UNDER THE 'OLD' AND 'NEW' PRODUCTION REFUNDS SYSTEM

(Tonnes of starch)

YEAR	MAIZE	WHEAT	RICE	POTATO	TOTAL
86/87	2873913	775456	6825	1045196	4701389
86/87	466316	136673	252	391007	994248
% new/old	16.2	17.6	3.7	37.4	21.1
87/88	2601961	905608	6423	1050314	4564307
87/88	979853	245192	391	647186	1872622
% new/old	37.7	27.1	6.1	61.6	41.0