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SURVEY OF COST OF PRODUCTION OF RAW COTTON

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SURVEY OF COST OF PRODUCTION OF RAW COTTON

INTRODUCTION

This document was last prepared in 1978 and contained information on costs of production in various countries for 1977. Prior to that, the document was published for Plenary Meetings of 1971 and 1972, and again in 1975, 1976 and 1977. In light of world-wide inflationary pressures and the desire to review cotton production costs in relation to price levels, the 38th Plenary Meeting instructed the Secretariat to conduct another survey of production costs. No changes in basic approach and methogology were suggested, but a request was made to look into the possibility of analyzing production costs separately for irrigated and non-irrigated areas. This was seen important as little information is currently available concerning differences in various cost items and comparative productivities under irrigated and dry conditions. The respondents were asked, therefore, to provide cost data separately for irrigated and non-irrigated areas, where applicable.

The questionnaire together with explanatory notes was sent to member as well as non-member countries, but the rate of response was again unsatisfactory. More than half of the countries contacted did not respond, some being major cotton producers, and several replies could not be used in the comparative analysis -- between countries, and over time -- due to the use of different formats by the respondents, quite often a shortened version of the questionnaire. Furthermore, of the eleven countries that were used as a sample for comparative analysis owing to consistent reporting through the years, only 9 replied to this year's survey.

Raw cotton costs are again divided into two broad categories - direct and indirect costs. Direct costs are those that are clearly associated with physical production, and include on-farm production and harvesting costs, as well as off-farm costs such as transportation and ginning charges. Indirect or overhead costs include items such as management and land costs. The sum of these two categories constitutes the gross cost for producing seed cotton. The net cost for lint is obtained by subtracting the value of cotton seed from the gross cost. Net cost is also presented in terms of U.S. cents per pound.

Influenced by escalating input costs, the cost of raw cotton production went up in nearly all reporting countries in 1979 from the 1977 levels. Based on the sample of 9 countries which have been replying over the years, the rise in total costs per hectare was about 36 percent, to $1,377 in 1979 compared to the 1977 figure. The average of 18 percent increase per year between 1977 and 1979 is considerably higher than the annual increases during previous years - less than 17 percent for 1975, 8 percent for 1976 and 11 percent for 1977. Compared to the base year 1970, costs in 1979 were up more than 400 percent.

For individual countries, the increase between 1977 and 1979 ranged from as little as 2 percent in Mexico to as high as 60 percent in Australia, with most countries reporting closer to the upper end of the scale. While all costs increased, most of the rise was accounted for by such items as labor, agricultural chemicals (including fertilizers), irrigation and custom work. In El Salvador, for example, the labor cost per hectare went up by 55 percent, or from $274 in 1977 to $425 in 1979, and in Spain the cost for agricultural chemicals was up nearly 50 percent, rising from $290 per hectare to nearly $420. The sharpest increase in irrigation costs took place in Israel -- tripling to over $740 per hectare -- due primarily to higher water charges that came in effect in early 1979. For all responding countries, the other items increased only moderately, probably close to the rate of inflation prevailing in each.

Sharpest increases in costs, in both absolute as well as proportional terms, occurred in large cost items, such as labor and agricultural chemicals - herbicides, insecticides and defoliants. Based on the sample, labor costs rose by $68 per hectare from 1977 to 1979, followed by chemicals, rising by $59. Improved cultural practices call for greater use of chemicals, and this is now becoming more apparent in countries where little was used in the past. For instance, in Pakistan while $15 worth of chemicals per hectare were used in 1970, the amount increased to nearly $60 in 1979, accounted for by both greater quantity as well as rising price. Likewise, in Syria, the amount spent on chemicals was under $10 in 1969, but increased sharply to $50 in 1979.

The rising cost of power and equipment in earlier years had indicated the growing use of modern machinery and tools in many countries, even though part of the increased cost was accounted for by rising prices for energy items. However, between 1977 and 1979, the cost of power and equipment rose only 12 percent, which is considerably lower than earlier rates of increase. The deceleration is probably caused by shortages as well as high prices of fuel and other energy sources.

On the question of irrigated versus non-irrigated cotton cultivation, only one country reported costs separately for the two categories. In the circumtances, it was thought that comparing the information from countries with extensive irrigation against those with little or no irrigation, will at least give some idea of the two systems of cultivation. A comparison of data from the two sets of countries reveals that the cost of producing one hectare of cotton under irrigated conditions was considerably higher than for non-irrigated areas. This was so not only because of the irrigation cost alone but also because of the generally increased outlay on complementary inputs of production, such as more intensive use of fertilizers, herbicides, insecticides, etc. Therefore, the higher the cost of irrigation, the higher was the expenditure on related items. Based on a sample of 10 countries, where cotton is grown under irrigated, or mostly irrigated conditions, the average cost per hectare was found to be 85 percent higher than the average cost for a non-irrigated hectare in 9 respondent countries which grow cotton mainly under non-irrigated conditions. But, because of the higher productivity of irrigated land, the per pound lint cost was actually lower by 20 percent when compared to the non-irrigated. Nevertheless, these results should be interpreted with considerable caution as comparisons were made between different countries with varying types of cultivation practices, including the level of input use, climatic conditions, and land productivity itself. For instance, according to the one reply that furnished data separately for irrigated and non-irrigated, the cost of production was only 47 percent higher on the irrigated land.

Despite sharply increased costs of cotton production in 1979 compared to 1977, per pound costs went up very little, as a result of extremely good yields in many countries. While per hectare net costs went up by over $324, the increase in net costs per pound was less than half a cent compared to the 1977 results. In this respect, however, there was considerable variation among the responding countries. The total net cost per hectare ranged from as little as $210 in Pakistan to as high as $2,103 in Spain. As a consequence, the net cost per pound also varied greatly from 25 cents in Pakistan to nearly $1.50 in Uganda.

ENQUETE SUR LES COUTS DE PRODUCTION DU COTON BRUT

INTRODUCTION

La dernière version de ce document remonte à 1978; elle contenait des informations concernant les coûts de la production de divers pays en 1977. Avant cette date, d'autres versions avaient été publiées à l'occasion des Réunions plénières de 1971 et 1972, puis en 1975, 1976 et 1977. Compte tenu des pressions inflationnistes qui se manifestaient dans le monde entier, et désireuse de voir où se situaient les coûts de production du coton par rapport aux niveaux des prix, la 38e Réunion plénière a chargé le secrétariat de réaliser une autre enquête sur les coûts de production. Elle n'a pas proposé de modifier les méthodes ni l'optique de l'étude, mais a demandé d'envisager la possibilité d'analyser séparément les coûts de production du coton en culture irriguée et en culture en sec. Cette différence était jugée importante car on ne dispose guère actuellement d'informations concernant les différences des divers éléments des coûts et de la productivité sous irrigation et en culture en sec. Le secrétariat a donc demandé aux répondants de fournir, le cas échéant, des données séparées pour les cultures sous irrigation et les cultures en sec.

Le questionnaire, accompagné de notes explicatives, a été envoyé aux pays membres, ainsi qu'à d'autres pays; une fois de plus, la proportion de réponses n'a pas été satisfaisante. Plus de la moitié des pays contactés, dont plusieurs gros producteurs, n'ont pas répondu; plusieurs réponses n'ont pas pu être utilisées pour les comparaisons - entre les pays et dans le temps - en raison des présentations différentes employées par les répondants, qui ont utilisé très souvent une version très condensée du questionnaire. En outre, sur les onze pays qui servaient à l'analyse comparée - parce qu'ils avaient toujours fourni des renseignements - neuf seulement ont répondu cette année à l'enquête.

Une fois de plus, les coûts du coton brut sont subdivisés en deux grandes catégories - coûts directs et coûts indirects. Les coûts directs sont ceux qui sont nettement associés à la production physique; ils englobent les coûts de production et de cueillette à l'exploitation, ainsi que les coûts hors exploitation, tels que les transports et les frais d'égrenage. Les coûts indirects, ou frais généraux, comportent des éléments tels que les frais d'administration et les frais de préparation des terres. La somme de ces deux catégories représente le coût brut de la production de coton-graine. Le coût net du coton-fibre est obtenu en soustrayant du coût brut la valeur du coton-graine. Le coût net est également présenté en cents E.U. la livre.

Sous l'influence de l'escalade des prix des facteurs de production, le coût de production du coton brut a augmenté dans presque tous les pays répondants, en 1979, par rapport aux niveaux de 1977. Sur la base de l'échantillon de 9 pays qui ont constamment répondu aux enquêtes, l'accroissement du coût brut total à l'hectare a été d'environ 36 pour cent par rapport à 1977; le coût a atteint $1.377 en 1979. L'augmentation moyenne, qui représente 18 pour cent par an entre 1977 et 1979, est beaucoup plus élevée que les augmentations annuelles des années précédentes - moins de 17 pour cent en 1975, 8 pour cent en 1976 et 11 pour cent en 1977. Si l'on prend 1970 comme année de base, les coûts avaient augmenté de plus de 400 pour cent en 1979.

Dans les divers pays, pris séparément, le taux d'accroissement entre 1977 et 1979 a oscillé entre 2 pour cent au Mexique et 60 pour cent en Australie; la plupart des pays ont indiqué des chiffres plus proches de la limite supérieure. Alors que tous les éléments des coûts ont augmenté, la plus grande partie de l'accroissement est imputable à des éléments tels que la main d'oeuvre, les produits chimiques agricoles (engrais compris), l'irrigation et les travaux à façon. Au El Salvador, par exemple, le coût de la main d'oeuvre à l'hectare a augmenté de 55 pour cent, soit de $274 en 1977 à $425 en 1979; en Espagne, le coût des produits chimiques agricoles s'est accru de près de 50 pour cent, passant de $290 à l'hectare à près de $420. La hausse la plus prononcée des frais d'irrigation a eu lieu en Israël, où ils ont triplé, pour atteindre $740 à l'hectare, en raison surtout de la hausse des redevances d'eau qui est entrée en vigueur au début de l'année 1979. Pour tous les pays

répondants, les autres éléments n'ont accusé qu'une hausse modérée, qui a été probablement proche du taux d'inflation de chaque pays.

Les plus fortes majorations en chiffres absolus et en chiffres relatifs, sont intervenues à propos des éléments importants des coûts, tels que la main d'oeuvre et les produits chimiques agricoles - herbicides, insecticides et défoliants. Sur la base de l'échantillon, les coûts de la main d'oeuvre ont augmenté de $68 à l'hectare entre 1977 et 1979, suivis de ceux des produits chimiques, qui ont augmenté de $59. L'amélioration des façons culturales demande qu'on emploie davantage d'engrais; cette évolution s'observe de façon particulière dans les pays qui en utilisaient peu dans le passé. Par exemple, au Pakistan, alors qu'on employait $15 de produits chimiques à l'hectare en 1970, le chiffre est passé à près de $60 en 1979; la hausse s'explique à la fois par l'élévation du prix et par l'accroissement de la quantité utilisée. De même, en Syrie, où l'on dépensait moins de 10 dollars pour des produits chimiques en 1969, le chiffre est passé à 50 dollars en 1979.

La hausse du prix de l'énergie et du matériel, qui avait été observée les années antérieures, correspondait à une intensification de l'emploi de machines et d'outils modernes dans de nombreux pays, bien qu'une partie de l'accroissement du coût corresponde aussi à la hausse du prix des produits énergétiques. Cependant, entre 1977 et 1979, le coût de l'énergie et du matériel n'a augmenté que de 12 pour cent, ce qui est nettement inférieur aux augmentations antérieures. La décélération est sans doute due à des pénuries, ainsi qu'à la hausse des prix des carburants et des autres sources d'énergie.

A propos de la question des cultures sous irrigation et des cultures en sec, un pays seulement a ventilé les coûts séparément pour les deux catégories. Dans ces conditions, on a pensé qu'en comparant les informations provenant des pays qui se servaient beaucoup de l'irrigation et des pays où il y a peu ou pas d'irrigation, on pourrait au moins avoir une idée des deux systèmes de culture. Une comparaison des données provenant des deux séries de pays révèle que le coût de production d'un hectare de coton est considérablement plus élevé sous irrigation que dans les zones de culture en sec. Il en est ainsi non seulement en raison du coût de l'irrigation proprement dite, mais aussi à cause de l'accroissement général des dépenses consacrées aux facteurs de production complémentaires; on entend par là, par exemple, l'intensification de l'emploi d'engrais, d'herbicides, d'insecticides, etc. Dans ces conditions, plus l'irrigation coûte cher, plus les dépenses relatives aux éléments connexes augmentent. Sur la base d'un échantillon de 10 pays où le coton se cultive sous irrigation, ou surtout sous irrigation, on a constaté que le coût moyen à l'hectare dépasse de 85 pour cent le coût moyen à l'hectare sans irrigation dans 9 pays répondants où le coton se cultive surtout en sec. Cependant, en raison de la productivité plus élevée des terres irriquées, le coût à la livre de fibre accuse en fait une diminution de 20 pour cent par rapport à celui de la culture en sec. Néanmoins, ces résultats doivent être interprétés avec la plus extrême prudence: en effet, les comparaisons ont été faites entre pays différents, qui utilisent des façons culturales diverses, où l'emploi des facteurs de production est différent, tout comme le sont les conditions climatiques et la productivité de la terre elle-même. C'est ainsi que, selon une réponse qui a fourni des données séparées pour les cultures sous irrigation et en sec, le coût de production sous irrigation n'accuse qu'une augmentation de 47 pour cent.

Malgré la forte augmentation des coûts de la production du coton en 1979 par rapport à 1977, les coûts à l'hectare n'ont guère été majorés, grâce aux rendements tout-à-fait excellents qu'ont obtenus de nombreux pays. Tandis que les coûts nets à l'hectare augmentaient de plus de 324 dollars, l'accroissement des coûts nets à la livre n'a pas atteint la moitié d'un cent par rapport aux résultats de 1977. A cet égard, cependant, on observe des variations considérables parmi les pays répondants. En effet, le coût net total à l'hectare va de $210 au Pakistan jusqu'à $2.103 en Espagne. Dans ces conditions, le coût à la livre a également varié de façon considérable, allant de 25 cents au Pakistan, jusqu'à près de $1.50 en Ouganda.

ENCUESTA ACERCA DE LOS COSTOS DE PRODUCCION DEL ALGODON EN RAMA

INTRODUCCION

Este documento se preparó por última vez en 1978 y presentaba información relativa a los costos de producción correspondientes a varios países en 1977. En ocasiones anteriores el documento se publicó para las Reuniones Plenarias de 1971 y 1972 y de nuevo en 1975, 1976 y 1977. Habida cuenta de las presiones inflacionarias mundiales y del deseo de examinar los costos de producción del algodón en relación con los niveles de precios, la 38a. Reunión Plenaria dio instrucciones a la Secretaría para que efectuara otra encuesta acerca de los costos de producción. No se sugirieron cambios en el enfoque básico ni en la metodología, pero se solicitó que se examinara la posibilidad de analizar los costos de producción diferenciándose las zonas de riego de las que carecen de él. Esto se consideró importante toda vez que es poca la información de que se dispone en la actualidad en cuanto a las diferencias entre varias partidas de costos y las productividades comparadas en condiciones de riego y sin riego. Se pidió a los encuestados, por consiguiente, que proporcionaran datos de costos por separado para las zonas regadas y las que no tienen riego, donde fuere del caso.

El cuestionario, junto con notas explicativas, se envió a países miembros y no miembros, pero la proporción de respuestas volvió a ser insatisfactoria. Más de la mitad de los países con los que se estableció contacto no respondió - algunos de ellos son productores importantes de algodón - y varias respuestas no se pudieron utilizar en el análisis comparativo - entre países y en el curso del tiempo - debido a que quienes respondieron emplearon formatos diferentes, con mucha frecuencia una versión abreviada del cuestionario. Por otra parte, de los once países que se utilizaron como muestra para el análisis comparativo, en razón de que estuvieron informando en forma constante durante años, sólo nueve respondieron a la encuesta de este año.

De nuevo los costos de producción del algodón se dividen en dos categorías generales: directos e indirectos. Son costos directos los que están claramente asociados con la producción material e incluyen los de producción en la finca y de cosechado, y también los costos fuera de la finca, como los de transporte y desmotado. Los costos indirectos o generales incluyen partidas como administración y los de la tierra. La suma de esas dos categorías constituye el costo bruto de producir algodón con semilla. El costo neto de la fibra de algodón se obtiene restando del costo bruto el valor de la semilla de algodón. El costo neto también se presenta en términos de centavos de dólar de los Estados Unidos por libra.

El costo de la producción de algodón en rama, en el que han influido los costos crecientes de los insumos, se elevó en 1979, por comparación con los niveles de 1977, en casi todos los países que informaron. Con fundamento en la muestra de nueve países que han estado respondiendo durante años, el aumento en el costo bruto total por hectárea fue de alrededor del 36 por ciento, para llegar a $1.377 en 1979 comparada con la cifra de 1977. El promedio de aumento del 18 por ciento anual entre 1977 y 1979 es considerablemente más alto que los aumentos anuales registrados durante los años precedentes, cuando fueron de menos del 17 por ciento en 1975, del 8 por ciento en 1976 y del 11 por ciento en 1977. Comparados con el año base de 1970, los costos en 1979 se elevaron en más del 400 por ciento.

En el caso de los países individuales, el aumento entre 1977 y 1979 fue tan bajo como el dos por ciento en México y tan elevado como el 60 por ciento en Australia, y la mayoría de los países informó de aumentos que se acercaban más al extremo superior de la escala. Si bien todos los costos se elevaron, la mayor parte del aumento cabe atribuirla a partidas como la mano de obra, los productos químicos agrícolas (incluidos los fertilizantes), el riego y el trabajo hecho a pedido. En El Salvador, por ejemplo, el costo de la mano de obra por hectárea se elevó en el 55 por ciento, pasando de $274 en 1977 a $425 en 1979, y en España el costo de los productos químicos agrícolas aumentó en casi el 50 por ciento, elevándose de $290 por hectárea a casi $420. El ascenso más acentuado en los costos de riego tuvo lugar en Israel - triplicándose a más de $740 por hectárea - debido principalmente a las tarifas más altas del agua que entraron en vigor a principios de 1979. Con respecto a todos los países que respondieron a la encuesta, las demás partidas aumentaron en escala sólo moderada, cercana probablemente a la tasa de inflación prevaleciente en cada uno de ellos.

Las alzas más bruscas en los costos, tanto en términos absolutos como proporcionales, se registraron en partidas de costos grandes, como mano de obra, productos químicos agrícolas, herbicidas, insecticidas y defoliantes. Con base en la muestra, los costos de la mano de obra aumentaron en $68 por hectárea de 1977 a 1979, seguidos de los productos químicos que se elevaron en $59. El mejoramiento de las prácticas de cultivo demanda mayor utilización de productos químicos y esto está poniéndose de evidencia ahora en países donde se hacía poco uso de ellos en el pasado. En el Pakistán, por ejemplo, donde en 1970 se utilizaban productos químicos por un valor de $15 por hectárea, esa suma se elevó a casi $60 en 1979, lo que representa una mayor cantidad y un precio más elevado. De manera análoga, en Siria el monto gastado en productos químicos fue menor de $10 en 1969, pero en 1979 esa suma se elevó bruscamente a $50.

El costo creciente de energía y equipo en años anteriores había indicado la utilización creciente de maquinaria y herramientas modernas en muchos países, aun cuando parte del mayor costo se debió a los precios en alza por concepto de energía. Sin embargo, entre 1977 y 1979, el costo de energía y equipo aumentó solo el 12 por ciento, incremento considerablemente más bajo que el registrado con anterioridad. Es probable que esa desaceleración sea ocasionada por escaseces así como por los elevados precios del combustible y de otras fuentes de energía.

Con respecto a la cuestión de los costos de cultivo del algodón en zonas regadas en contraste con las no regadas, sólo un país informó por separado de los costos correspondientes a las dos categorías. Habida cuenta de las circunstancias se pensó que el comparar la información de países con extensos sistemas de riego con los que tienen poco o ningún riego daría por lo menos alguna idea de los dos sistemas de cultivo. La comparación de datos de los dos conjuntos de países revela que el costo de producir una hectárea de algodón en condiciones de riego era considerablemente más elevado que el de zonas sin riego. Esto se debía no sólo al costo del riego en sí, sino también al aumento del desembolso en general para insumos complentarios de producción, como utilización más intensiva de fertilizantes, herbicidas, insecticidas, etc. Por lo tanto, cuanto mayor era el costo de riego, más elevados eran los gastos en partidas relacionadas. Con base en una muestra de diez países, donde el algodón se cultiva en un régimen de riego, o en condiciones de riego en su mayor parte, se encontró que el costo medio por hectárea era 85 por ciento más elevado que el costo medio de una hectárea no regada en nueve de los países que respondieron y cultivan el algodón en condiciones que no son de riego en su mayor parte. Pero debido a la mayor productividad de las tierras regadas, el costo de la fibra por libra de hecho fue 20 por ciento más bajo por comparación con el producido en las tierras no regadas. Estos resultados, de todos modos, deben interpretarse con toda cautela ya que las comparaciones se hicieron entre diferentes países, con diversos tipos de prácticas de cultivo, de nivel de utilización de insumos, de condiciones climatológicas y de productividad de la propia tierra. Por ejemplo, según la única respuesta en la que se suministraban datos separados para los dos cultivos, con riego y sin riego, el costo de producción era sólo el 47 por ciento más alto en las tierras regadas.

Pese a los señalados aumentos de los costos de producción del algodón en 1979 comparados con los de 1977, los costos por libra se elevaron muy poco como consecuencia de los rendimientos sumamente favorables obtenidos en muchos países. En tanto que los costos netos por hectárea aumentaron en más de $324, el alza en los costos netos por libra fue menos de medio centavo comparado con los resultados de 1977. En ese aspecto, sin embargo, hubo considerable variación entre los países que respondieron a la encuesta. El costo total neto por hectárea osciló entre el reducido de $210 en el Pakistán y el elevado de $2.103 en España. Como consecuencia, el costo neto por libra también mostró grandes variaciones, ya que fue de 25 centavos en Pakistán y casi llegó a $1,50 in Uganda.

Summary Table 1 - Average per hectare cost of raw cotton production for eleven selected countries, 1974-77 and 1979.
Moyenne du coût de production du coton brut par hectare, pour onze pays sélectionnés, en 1970, 1974-77 et 1979.
Promedio del costo de producción de algodón bruto por hectárea, para once países seleccionados, en 1970, 1974-77 y 1979.

Cost items	1970	1974	1975	1976	1977	1979	Rubrique/Rubro
	In U.S. dollars/En dollars des E.U./ En dolares de EE.UU.						
On farm direct costs							Coûts directs à l'exploitation/Costos directos en el fundo agrícola
Preharvesting							Avant la récolte/Antes de la cosecha
Labor	69.7	94.1	108.3	117.1	135.1	181.9	Main d'oeuvre/Mano de obra
Power and Equipment	24.2	70.7	90.4	110.1	108.6	121.3	Energie et matériel/fuerza motriz y equipo
Seed	7.7	15.9	9.2	12.9	10.9	13.9	Semence/Semilla
Fertilizer	24.5	60.3	67.2	68.8	65.0	91.5	Engrais/Fertilizante
Herbicides, fungicides and others	18.2	91.3	109.3	126.9	124.1	183.1	Herbicides, fongicides, et autres/ Herbicidas, fungicidas, y otros
Irrigation	14.5	23.2	48.0	30.9	48.8	105.7	Irrigation/irrigación
Custom work	5.5	20.7	21.5	23.2	24.1	51.4	Travaux à façon/Trabajo encargado
Others	-	8.4	17.9	21.9	25.9	9.7	Autres/Otros
SUB-TOTAL	164.3	384.6	471.8	511.8	542.3	758.5	TOTAL PARTIEL/TOTAL PARCIAL
Harvesting							Récolte/Cosecha
Labor	35.1	84.6	83.5	84.6	73.8	95.4	Main d'oeuvre/Mano de obra
Power and equipment	6.6	19.3	26.4	29.9	34.2	36.2	Energie et matériel/Fuerza motriz y equipo
Custom work	2.2	2.0	2.3	2.4	59.5	95.2	Travaux à façon/Trabajo encargado
Others	2.3	2.8	3.5	2.0	2.9	7.8	Autres/Otros
SUB-TOTAL	46.2	108.7	115.7	118.9	170.4	234.6	TOTAL PARTIEL/TOTAL PARCIAL
Interest	5.7	7.7	29.1	32.1	35.7	45.8	Intérêt/Intereses
Off farm direct costs							Coûts directs en dehors de l'exploitation/ Costos directos incurridos fuera del fundo agrícola
Transportation	5.4	13.5	13.1	14.7	15.4	27.9	Transports/Transporte
Ginnings and ties	23.6	53.8	79.5	63.0	72.0	105.1	Egrenage et cerclage/Desmote y amarres
Others	-	4.5	3.0	2.4	3.9	3.4	Autres/otros
SUB-TOTAL	29.0	71.8	95.6	80.1	91.3	136.4	TOTAL PARTIEL/TOTAL PARCIAL
I-Total direct costs	245.2	572.8	712.2	742.9	839.7	1,175.3	I-Total des coûts directs/Total de costos directos
Overhead costs							Frais généraux/Costos generales fijos
Management	11.5	37.4	33.7	42.2	36.1	53.8	Gestion/Manejo
Land cost (rent)	60.8	82.0	85.4	104.9	104.4	130.4	Coût des terrains (loc.)/Costo del terreno (Alq.)
Others	5.2	21.1	12.3	20.6	34.6	17.5	Autres/Otros
II-Total overhead costs	77.5	140.5	131.3	167.7	175.1	201.7	II-Total frais généraux/Total costos generales fijos
TOTAL COST - Seed cotton	322.7	713.3	843.5	910.7	1,014.8	1,377.0	TOTAL DES COUTS - coton graine/COSTOS TOTALES - algodón con semilla
MINUS - Value of cotton seed	-	-	126.4	124.8	160.7	196.4	MOINS valeur de la graine de coton/MENOS valor de la semilla de algodón
Net cost for lint	-	-	717.1	785.9	854.1	1,180.6	Coût net pour la fibre/Costo neto de la fibra
Per pound net cost for lint in US cetns	-	-	51.00	54.67	55.00	55.46	Coût net pour la fibre en cents des EU la livre/ Costos netos de fibra en centavos E.U. por libra

Summary Table 2 - Relative shares of various cost items for eleven selected countries, 1970, 1974-77 and 1979.
Part relative des différents coûts pour onze pays sélectionnés, en 1970 et 1974-77.
Participación relativa de varias partidas de costos para once países seleccionados en 1970, 1974-77 y 1979.

Cost items	1970	1974	1975	1976	1977	1979	Rubrique/Rubro
	Percent/Pourcentage/Porcentaje						
On farm direct costs							Coûts directs à l'exploitation/Costos directos en el fundo agrícola
Preharvesting							Avant la récolte/Antes de la cosecha
Labor	21.6	13.2	12.8	12.9	13.3	13.2	Main d'oeuvre/Mano de obra
Power and Equipment	7.5	9.9	10.7	12.1	10.7	8.8	Energie et matériel/Fueza motriz y equipo
Seed	2.4	2.2	1.1	1.4	1.1	1.0	Semences/Semilla
Fertilizer	7.6	8.5	8.0	7.6	6.4	6.7	Engrais/Fertilizante
Herbicides, fungicides and others	5.6	12.8	13.0	13.9	12.2	13.3	Herbicides, fongicides et autres/ Herbicidas, fungicidas y otros
Irrigation	4.5	3.2	5.7	3.4	4.8	7.7	Irrigation/Irrigación
Custom work	1.7	2.9	2.5	2.6	2.4	3.7	Travaux à façon/Trabajo encargado
Others	0.0	1.2	2.1	2.4	2.5	0.7	Autres/otros
SUB-TOTAL	50.9	53.9	55.9	56.3	53.4	55.1	TOTAL PARTIEL/TOTAL PARCIAL
Harvesting							Récolte/Cosecha
Labor	10.9	11.9	9.9	9.3	7.3	6.9	Main d'oeuvre/Mano de obra
Power and equipment	2.0	2.7	3.1	3.3	3.4	2.6	Energie et matériel/Fuerza motriz y equipo
Custom work	0.7	0.3	0.3	0.3	5.7	6.9	Travaux à façon/Trabajo encargado
Others	0.7	0.4	0.4	0.2	0.3	0.6	Autres/Otros
SUB-TOTAL	14.3	15.3	13.7	13.0	16.8	17.0	TOTAL PARTIEL/TOTAL PARCIAL
Interest	1.8	1.1	3.4	3.5	3.5	3.3	Intérêts/Intereses
Off farm direct costs							Coûts directs en dehors de l'exploitation/ Costos directos incurridos fuera del fundo agrícola
Transportation	1.7	1.9	1.5	1.6	1.5	2.0	Transports/Transporte
Ginnings and ties	7.3	7.5	9.4	6.9	7.1	7.6	Egrenage et cerclage/Desmote y amarres
Others	0.0	0.6	0.4	0.3	0.4	0.3	Autres/Otros
SUB-TOTAL	9.0	10.0	11.3	8.8	9.0	9.9	TOTAL PARTIEL/TOTAL PARCIAL
I-Total direct costs	76.0	80.3	84.4	81.5	82.7	85.3	I-Total des coûts directs/Total de costos directos
Overhead costs							Frais généraux/Costos generales fijos
Management	3.6	5.2	4.0	4.6	3.5	3.9	Gestion/Manejo
Land cost (rent)	18.8	11.5	10.1	11.5	10.3	9.5	Coût des terrains (loc.)/Costo del Terreno (Alq.)
Others	1.6	3.0	1.5	2.3	3.4	1.3	Autres/Otros
II-Total overhead costs	24.0	19.7	15.6	18.5	17.2	14.7	II-Total frais généraux/Total costos generales fijos
TOTAL COST - Seed cotton	100.0	100.0	100.0	100.0	100.0	100.0	TOTAL DES COUTS - coton graine/COSTOS TOTALES - Algodón con semilla

Summary Table 3 - Costs of cotton production for all reporting countries, 1979.
Coûts de production du coton pour tous les pays ayant fourni des informations pour 1977.
Costos de la producción de algodón correspondientes a todos los países que enviaron información, 1977.

Country	Net cost per ha. ($US) Coût net par ha. ($EU) Costo neto por ha.($EU)	Net cost per pound (¢US) Coût net par livre (¢EU) Costo neto por libra (¢EU)
Australia	1,367.0	62.63
Bolivia	796.8	66.32
Central African Republic	761.0	115.06
Colombia	713.0	57.65
El Salvador	1,235.6	53.32
Iran	976.0	89.40
Iraq	958.5	82.34
Israel*	2,006.1	60.66
Ivory Coast	674.8	76.52
Kenya	482.0	113.87
Madagascar	1,001.9	69.92
Mexico*	1,130.4	57.81
Morocco	1,234.9	116.70
Pakistan	210.1	24.56
South Africa**	448.8	41.13
Spain	2,103.0	95.39
Sudan*	673.9	-
Syria	1,498.2	73.47
Thailand	404.3	43.98
Turkey	914.9	52.87
Uganda	330.2	149.81
United States		
Southeast	950.1	80.55
Delta	885.9	62.01
Southwest	486.1	54.85
West	1,515.0	61.30
US average	750.2	59.49
Zaire	-	101.15

*No allowance was made for the value of cotton seed.
**Dry land only.

Country AUSTRALIA* Crop year 1979/80

Yield used (kilos per hectare)
for seed (unginned) cotton 3,143
of which: cotton lint 990
cotton seed 1,672

Item	Average estimated cost per hectare	
	Quantity used per ha. (specify unit)	Cost in US$
On farm direct costs		
Preharvesting:		
Labor		277.00
Power		204.00
Equipment		
Seed	27 kgs.	24.00
Fertilizer		52.00
Herbicides	7.5 lts.	46.00
Insecticides & fungicides	11 applications	150.00
Defoliants & other chemicals		17.00
Irrigation	6.5 acre ft.	41.00
Custom or contract work		79.00
Other (specify) _____		-
(A) Subtotal		890.00
Harvesting:		
Labor		70.00
Power		87.00
Equipment		
Custom or contract work		-
Other (specify) Ground Dump Materials		8.00
(B) Subtotal		165.00
(C) Interest on operating capital		48.00
Off farm direct costs		
Transportation to gin		28.00
Ginning (including bagging & ties)		160.00
Other (specify) _____		-
(D) Subtotal		188.00
I. Total direct costs (A + B + C + D)		1,291.00
Overhead costs		
Management & administration		177.00
Land cost (typical rental value)		81.00
Other (specify) _____		-
II. Total overhead costs		258.00
TOTAL COSTS FOR SEED COTTON (I + II)		1,549.00
MINUS - value of cottonseed extracted in ginning ($120 per ton - 10 Delivery - $110/+)		182.00
NET COSTS FOR LINT		1,367.00
Net costs for lint in US cents per pound		62.63
Rate of exchange used for converting local currency into US dollars	$A1.00 = $US1.10	

Additional remarks:

* In the State of New South Wales only.

Country BOLIVIA Crop year 1979/80

Yield used (kilos per hectare)
for seed (unginned) cotton 1,650
of which: cotton lint 545
cotton seed 907

Item	Average estimated cost per hectare	
	Quantity used per ha. (specify unit)	Cost in US$
On farm direct costs		
Preharvesting:		
Labor	6 man-days	22.02
Power		-
Equipment	17.8 tractor-hours	173.38
Seed	30 pounds	9.60
Fertilizer		-
Herbicides	2 liters	10.60
Insecticides & fungicides		99.39
Defoliants & other chemicals	1.50 liters	6.38
Irrigation		-
Custom or contract work		51.60
Other (specify) Aerial spraying	7 times	28.00
(A) Subtotal		400.97
Harvesting:		
Labor	24 man-days	144.00
Power		-
Equipment	2 bags	2.40
Custom or contract work		44.59
Other (specify)		-
(B) Subtotal		190.99
(C) Interest on operating capital		52.50
Off farm direct costs		
Transportation to gin		40.32
Ginning (including bagging & ties)		96.00
Other (specify) insurance,		4.32
transport and handling of bales		8.16
(D) Subtotal		148.80
I. Total direct costs (A + B + C + D)		793.26
Overhead costs		
Management & administration		-
Land cost (typical rental value)		-
Other (specify) Medical expenses		24.00
Contribution ADEPA		13.20
Mobility		16.00
Unforeseen		28.00
II. Total overhead costs		81.20
TOTAL COSTS FOR SEED COTTON (I + II)		874.46
MINUS - value of cottonseed extracted in ginning		77.63
NET COSTS FOR LINT		796.83
Net costs for lint in US cents per pound		66.32
Rate of exchange used for converting local currency into US dollars	$b 25.00 = US$1.00	

Additional remarks:

Country CENTRAL AFRICAN REPUBLIC Crop year 1979/80

Yield used (kilos per hectare)
for seed (unginned) cotton 800
of which: cotton lint 300
cotton seed 472

Item	Average estimated cost per hectare	
	Quantity used per ha. (specify unit)	Cost in US$
On farm direct costs		
Preharvesting:		
Labor	200 days	190.00
Power		-
Equipment		-
Seed	30 kg./ha.	-
Fertilizer	100 kg./ha.	48.00
Herbicides		-
Insecticides & fungicides	10 lt./ha.	48.00
Defoliants & other chemicals		-
Irrigation		-
Custom or contract work		-
Other (specify) _____		-
(A) Subtotal		286.00
Harvesting:		
Labor	40 days	38.00
Power		-
Equipment		-
Custom or contract work		-
Other (specify) _____		-
(B) Subtotal		38.00
(C) Interest on operating capital		-
Off farm direct costs		
Transportation to gin		-
Ginning (including bagging & ties)		-
Other (specify) _____		
(D) Subtotal		457.00
I. Total direct costs (A + B + C + D)		781.00
Overhead costs		
Management & administration		-
Land cost (typical rental value)		-
Other (specify) _____		-
II. Total overhead costs		-
TOTAL COSTS FOR SEED COTTON (I + II)		781.00
MINUS - value of cottonseed extracted in ginning		20,00
NET COSTS FOR LINT		761.00
Net costs for lint in US cents per pound		115.06
Rate of exchange used for converting local currency into US dollars	210 FCFA = US$1.00	

Additional remarks: cost of labor is 200 FSFA per day
value of the seed assumes utilization for oil

Country COLOMBIA* Crop year 1979/80

Yield used (kilos per hectare)
- for seed (unginned cotton) 1.700
- for cotton lint 561
935

Item	Average estimated cost per hectare	
	Quantity used per ha. (specify unit)	Cost in US$
On farm direct costs		
Preharvesting:		
Labor	12 man-days	43.00
Power	1 ploughing, 3 rakings for	89.00
Equipment	planting, 2 plant. semi mound & mound	
Seed	30 kgs.	17.00
Fertilizer	120 kgs Urea	28.00
Herbicides	2-1/2 kgs cotoran + 2-1/2ts Dual	41.00
Insecticides & fungicides		-
Defoliants & other chemicals	8 applications	133.00
Irrigation		-
Custom or contract work		-
Other (specify)		-
(A) Subtotal		351.00
Harvesting:		
Labor	48 man-days	151.00
Power		-
Equipment		-
Custom or contract work		-
Other (specify) stalk destruction		31.00
(B) Subtotal		182.00
(C) Interest on operating capital		40.00
Off farm direct costs		
Transportation to gin		17.00
Ginning (including bagging & ties)		73.00
Other (specify) union quota		38.00
(D) Subtotal		128.00
I. Total direct costs (A+B+C+D)		701.00
Overhead costs		
Management & administration		74.00
Land cost (typical rental value)		78.00
Other (specify) technical assistance		15.00
unforeseen		44.00
II. Total overhead costs		211.00
TOTAL COSTS FOR SEED COTTON (I + II)		912.00
MINUS - value of cottonseed extracted in ginning		199.00
NET COSTS FOR LINT		713.00
Net costs for lint in US cents per pound		57.65
Rate of exchange used for converting local currency into US dollars	45.00 pesos = $US1.00	

Additional remarks:

*In the Godazzi only (Cesar - Colombia)

Country EGYPT

Crop year 1979

COST OF PRODUCING ONE HECTARE OF COTTON
Calculated in two ways: 1/ for different agricultural operations, and
2/ through costs of different inputs

Item	Average cost/hectare
1/ Agricultural operations:	US$
Land preparation	45.12
Seed and sowing	18.46
Irrigation	52.02
Fertilization	82.90
Thining, hoeing and weeding .	72.50
Plant protection . . . . . (Pest control operation)	68.00
Harvesting and transportation	132.26
Other expenses	10.95
Total cost	482.21
Rent	153.71
Total cost for seed cotton	635.92

Continued . . . . .

EGYPT (continued)

Item	Average cost/hectare
2/ By inputs:	US $
Labor	280.40
Animal and mechanical power	25.84
Seeds	5.95
Organic manure	31.21
Chemical fertilizer . . .	39.51
Cost of machinery	42.06
Insecticides	46.04
Other expenses	10.95
Total expenses . .	481.96
Rent	153.71
Total cost & rent	635.67

Country EL SALVADOR Crop year 1979/80

Yield used (kilos per hectare)
for seed (unginned) cotton 2,628
of which: cotton lint 1,051
cotton seed 1,445

Item	Average estimated cost per hectare	
	Quantity used per ha. (specify unit)	Cost in US$
On farm direct costs		
Preharvesting:		
Labor	36 man-days	152.85
Power	57 tractor/hours	97.14
Equipment (plane)	157 gallons	69.94
Seed	46 kgs./ha.	9.80
Fertilizer	138 kgs. of "N"	
	29 kgs. of "P"	95.40
Insecticide	3.8 lts. Decis	
	6.5 lts. Folidol	
	11.5 lts E.M.U.L.V.	245.19
Custom or contract work		-
Other (specify) oxen	12 days-oxen	61.71
(A) Subtotal		732.03
Harvesting:		
Labor	1 quintal-man	273.12
Power		-
Equipment		-
Custom or contract work		-
Other (specify) sacs stuffing		5.70
(B) Subtotal		278.82
(C) Interest on operating capital		165.70
Off farm direct costs		
Transportation to gin		22.80
Ginning (including bagging & ties)		68.27
Other (specify)		-
(D) Subtotal		91.07
I. Total direct costs (A + B + C + D)		1,267.62
Overhead costs		
Management & administration		22.80
Land cost (typical rental value)		171.42
Other (specify)		-
II. Total overhead costs		194.22
TOTAL COSTS FOR SEED COTTON (I + II)		1,461.84
MINUS - value of cottonseed extracted in ginning		226.15
NET COSTS FOR LINT		1,235.69
Net costs for lint in US cents per pound		53.33
Rate of exchange used for converting local currency into US dollars	Colons 2.50 = US$1.00	

Additional remarks:

Country IRAN Crop year 1978/79

Yield used (kilos per hectare)
for seed (unginned) cotton 1,502
of which: cotton lint 495
cotton seed -

Item	Average estimated cost per hectare	
	Quantity used per ha. (specify unit)	Cost in US$
On farm direct costs		
Preharvesting:		
Labor	50 L/D	280.00
Power		30.00
Equipment		-
Seed	50 kgs.	12.00
Fertilizer	200 kgs.	40.00
Herbicides		-
Insecticides & fungicides	Average 3 times spr.	150.00
Defoliants & other chemicals		-
Irrigation	Average 3 times irr.	90.00
Custom or contract work		-
Other (specify) _____		-
(A) Subtotal		602.00
Harvesting:		
Labor	40 L/D	210.00
Power		-
Equipment		-
Custom or contract work		-
Other (specify) _____		-
(B) Subtotal		210.00
(C) Interest on operating capital		21.00
Off farm direct costs		
Transportation to gin		15.00
Ginning (including bagging & ties)		60.00
Other (specify) _____		-
(D) Subtotal		75.00
I. Total direct costs (A + B + C + D)		908.00
Overhead costs		
Management & administration		65.00
Land cost (typical rental value)		210.00
Other (specify) _____		28.00
II. Total overhead costs		303.00
TOTAL COSTS FOR SEED COTTON (I + II)		1,211.00
MINUS - value of cottonseed extracted in ginning		235.00
NET COSTS FOR LINT		976.00
Net costs for lint in US cents per pound		89.44
Rate of exchange used for converting local currency into US dollars	Rials 70.60 = US$1.00	

Additional remarks:

Country IRAQ Crop year 1979/80

Yield used (kilos per hectare) for seed (unginned) cotton	1,600
of which: cotton lint	528
cotton seed	1,040

Item	Average estimated cost per hectare	
	Quantity used per ha. (specify unit)	Cost in US$
On farm direct costs		
Preharvesting:		
Labor		408.00
Power		-
Equipment		18.60
Seed	60 kgs./ha.	6.00
Fertilizer	200 kgs.urea+140kgsPhos.	31.20
Herbicides		-
Insecticides & fungicides		9.00
Defoliants & other chemicals		-
Irrigation	14% of yield value	109.20
Custom or contract work		-
Other (specify) Fertilizer transportation		3.00
(A) Subtotal		585.00
Harvesting:		
Labor		-
Power		-
Equipment		-
Custom or contract work		-
Other (specify)		-
(B) Subtotal		288.00
(C) Interest on operating capital		
Off farm direct costs		
Transportation to gin		14.40
Ginning (including bagging & ties)		72.00
Other (specify)		-
(D) Subtotal		86.40
I. Total direct costs (A + B + C + D)		959.40
Overhead costs		
Management & administration	2% of yield value	15.36
Land cost (typical rental value)	10% of yield value	76.80
Other (specify) Farmers Union	2% of yield value	15.36
II. Total overhead costs		107.52
TOTAL COSTS FOR SEED COTTON (I + II)		1,066.92
MINUS - value of cottonseed extracted in ginning		108.42
NET COSTS FOR LINT		958.50
Net costs for lint in US cents per pound		82.34
Rate of exchange used for converting local currency into US dollars	1 Iraqi Dinar about US$1.00	

Additional remarks: 1) All operations for cotton cultivation are done by hand except seedbed preparation. 2) All cotton in Iraq is irrigated. 3) Labor wages are about $6.00 per day.

Country ISRAEL

Crop year 1980

COST OF PRODUCTION OF COTTON PER HECTARE

INPUT	NUMBER OF INPUT UNITS OR TIMES	COST IN US $
1. EQUIPMENT		
Fertilizer (solid)	2	15.15
Fertilizer (liquid)	1	15.15
Plowing	1	39.39
Discing, planing	1	34.85
Cultivation (winter)	2	30.30
Ridging	1	13.64
Planting	1	15.15
Moving irrigation lines	4	60.61
Aerial spraying	7	106.06
Stalk chopping	1	15.15
1. Total equipment (up to harvest)		345.45
2. HARVEST & TRANSPORT		
Mech. Picker (2-row)	1	181.82
Transport	1	24.24
2. Total harvest		206.06
3. GINNING (TOTAL)	1	166.67
4. MATERIALS, ETC.		
Insecticide		196.97
Defoliant	2	27.27
Fertilizer (gran)		84.85
Fertilizer (liquid)		33.33
Herbicide		60.61
Water	450 cu.m.	681.82
Scouting (insect)		15.15
Weeding (Labor)		157.58
Misc.		30.30
4. Total materials		1,287.88
TOTAL INPUT (1+2+3+4)		2,006.06

33.33% Lint from 4,500 Kg seed cotton = 1,500 kg.

Rate of exchange used: 33 IL = US $ 1.00

Cost of Production of 1 lb of lint = 60.66 cents

Country IVORY COAST Crop year 1979/80

Yield used (kilos per hectare)
for seed (unginned) cotton 1,000
of which: cotton lint 400
cotton seed

Item	Average estimated cost per hectare	
	Quantity used per ha. (specify unit)	Cost in US$
On farm direct costs		
Preharvesting:		
Labor	96 man-days	165.12
Power		-
Equipment	small equipment	4.00
Seed	40 kgs.	2.14
Fertilizer	200 kgs. NPK + 50 kgs Urea	86.24
Herbicides		-
Insecticides & fungicides	12,5 lt. + machine	88.21
Defoliants & other chemicals		-
Irrigation		-
Custom or contract work		-
Other (specify)		-
(A) Subtotal		345.71
Harvesting:		
Labor	42 man-days	72.24
Power		-
Equipment		-
Custom or contract work		-
Other (specify) transport	5 man-days	8.60
Stalk destruction	10 man-days	17.20
(B) Subtotal		98.04
(C) Interest on operating capital		
Off farm direct costs		
Transportation to gin		59.79
Ginning (including bagging & ties)		99.51
Other (specify)		-
(D) Subtotal		159.30
I. Total direct costs (A + B + C + D)		603.05
Overhead costs		
Management & administration		-
Land cost (typical rental value)		-
Other (specify) Supervision		106.94
II. Total overhead costs		106.94
TOTAL COSTS FOR SEED COTTON (I + II)		709.99
MINUS - value of cottonseed extracted in ginning		34.98
NET COSTS FOR LINT		675.01
Net costs for lint in US cents per pound		76.54
Rate of exchange used for converting local currency into US dollars	205.82 FCAF = US$1.00	

Additional remarks:
In the case of manual cultivation
1 man-day = 354 FCFA = $1.82

Country KENYA Crop year 1979/80

Yield used (kilos per hectare)
for seed (unginned) cotton 600
of which: cotton lint 192
cotton seed 408

Item	Average estimated cost per hectare	
	Quantity used per ha. (specify unit)	Cost in US$
On farm direct costs		
Preharvesting:		
Labor	85 man-days	113.30
Power		-
Equipment	10 hrsx60 HP tractor	100.00
Seed	22 kgs.	3.00
Fertilizer	TSP 150 kgs.	72.00
	CAN 100 kgs.	29.30
Insecticides & fungicides	75%DDT W.P. at 1.4 kgs.	
	85%Carbaryl W.P. 1.25kgs.	55.60
Irrigation		-
Custom or contract work		-
Other (specify)		-
(A) Subtotal		373.20
Harvesting:		
Labor	31 man-days	41.30
Power		-
Equipment	20 gunny bags cyc. 3times	5.80
Custom or contract work		-
Other (specify)		6.00
(B) Subtotal		53.10
* (C) Interest on operating capital	charged at 11%	
Off farm direct costs		
Transportation to gin		
Ginning (including bagging & ties)		40.00
Other (specify) Rent of stores, transportation to gin, interest in excess of 90 days, and buying commission		26.10
(D) Subtotal		66.10
I. Total direct costs (A+B+C+D)		492.40
Overhead costs		
Management & administration		-
Land cost (typical rental value)		-
Other (specify) Management and administration less Govern. contribution in for of technical advice		44.30
II. Total overhead costs		44.30
TOTAL COSTS FOR SEED COTTON (I + II)		536.70
MINUS - value of cottonseed extracted in ginning		54.70
** NET COSTS FOR LINT		482.00
Net costs for lint in US cents per pound		113.87
Rate of exchange used for converting local currency into US dollars	Kshs. 7.5 = US$1.00	

Additional remarks:
* This is included under the off farm direct costs.
** These costs are as of August, 1979.

Country MADAGASCAR Crop year 1979/80

Yield used (kilos per hectare)
for seed (unginned) cotton 1,700
of which: cotton lint 650
cotton seed 1,020

Item	Average estimated cost per hectare	
	Quantity used per ha. (specify unit)	Cost in US$
On farm direct costs		
Preharvesting:		
Labor	65 man-days	126.00
Power	} soil preparation	161.00
Equipment	}	
Seed	50 kgs.	1.20
Fertilizer	460 kgs.	172.00
Herbicides		-
Insecticides & fungicides	60 lts.	279.00
Defoliants & other chemicals		-
Irrigation		-
Custom or contract work		-
Other (specify)		15.50
renting of equipment, staffing		11.90
transportation		23.40
(A) Subtotal		790.00
Harvesting:		
Labor	60 man-days	117.00
Power		-
Equipment		-
Custom or contract work		-
Other (specify)		-
(B) Subtotal		117.00
(C) Interest on operating capital		-
Off farm direct costs		
Transportation to gin		61.40
Ginning (including bagging & ties)		104.50
Other (specify)		-
(D) Subtotal		165.90
I. Total direct costs (A+B+C+D)		1,072.90
Overhead costs		
Management & administration		50.00
Land cost (typical rental value)		-
Other (specify)		-
II. Total overhead costs		50.00
TOTAL COSTS FOR SEED COTTON (I + II)		1,122.90
MINUS - value of cottonseed extracted in ginning		121.00
NET COSTS FOR LINT		1,001.90
Net costs for lint in US cents per pound		69.92
Rate of exchange used for converting local currency into US dollars	210 FMG = US$1.00	

Additional remarks:

Country MEXICO

Crop year 1979/80

ESTIMATED COSTS OF PRODUCTION BY ZONES

Production zones	Average cost/hectare	Cost for lint in US cents per lb.
Sinaloa	1,004.37	58.50
Sonora	1,179.04	54.88
Mexicali, B.C.N. Y S.L.R.C., Son.	1,222.71	55.05
Baja California Sur . . .	1,004.37	45.31
Comarca Lagunera	1,222.71	61.79
Chihuahua	1,048.03	64.70
Apatzingan, Mich: . . .	1,205.24	64.55
Chiapas	960.70	59.84
Tamaulipas	786.03	76.10
Oaxaca	908.30	100.08
Morelos	825.33	99.52
National Average	1,130.39	57.81

Rate of exchange used: 22.9 Pesos = US $ 1.00

Country MOROCCO Crop year 1978/79

Yield used (kilos per hectare)
for seed (unginned) cotton 1,500
of which: cotton lint 480
cotton seed 975

Item	Average estimated cost per hectare	
	Quantity used per ha. (specify unit)	Cost in US$
On farm direct costs		
Preharvesting:		
Labor	62 man-days	155.00
Power		-
Equipment		
Seed	0.51 quintals	9.73
Fertilizer	2.50 quintals	40.64
Herbicides		-
Insecticides & fungicides	)	250.00
Defoliants & other chemicals	)	
Irrigation	6,000m^3	45.00
Custom or contract work		-
Other (specify) ploughing and ridging		53.75
(A) Subtotal		554.12
Harvesting:		
Labor	56 man-days	140.00
Power	) manual picking	-
Equipment	)	
Custom or contract work		-
Other (specify) stalk destruction and incineration	10 man-days	25.00
(B) Subtotal		165.00
(C) Interest on operating capital		-
Off farm direct costs		
Transportation to gin		17.50
Ginning (including bagging & ties)		-
Other (specify)		375.00
(D) Subtotal		392.50
I. Total direct costs (A+B+C+D)		1,111.62
Overhead costs		
Management & administration	grower's salary	125.00
Land cost (typical rental value)		125.00
Other (specify) financial costs		31.75
II. Total overhead costs		281.75
TOTAL COSTS FOR SEED COTTON (I + II)		1,393.37
MINUS - value of cottonseed extracted in ginning		158.44
NET COSTS FOR LINT		1,234.93
Net costs for lint in US cents per pound		116.70
Rate of exchange used for converting local currency into US dollars	4.00 DH = US$1.00	

Additional remarks:

Country PAKISTAN Crop year 1979/80

Yield used (kilos per hectare)
for seed (unginned) cotton 1,164
of which: cotton lint 388
cotton seed 776

Item	Average estimated cost per hectare	
	Quantity used per ha. (specify unit)	Cost in US$
On farm direct costs		
Preharvesting:		
Labor	43 man-days	52.38
Power	)	10.76
Equipment	)	
Seed	20 kgs.	5.98
Fertilizer	185 kgs.	36.05
Herbicides	)	
Insecticides & fungicides	) 3 sprays	59.88
Defoliants & other chemicals	)	
Irrigation	7 irrigations	10.98
Custom or contract work		-
Other (specify)		-
(A) Subtotal		176.03
Harvesting:		
Labor	25 man-days	29.89
Power		-
Equipment		-
Custom or contract work		-
Other (specify)		-
(B) Subtotal		29.89
(C) Interest on operating capital		11.52
Off farm direct costs		
Transportation to gin		6.25
Ginning (including bagging & ties)		31.21
Other (specify)		-
(D) Subtotal		37.46
I. Total direct costs (A+B+C+D)		254.90
Overhead costs		
Management & administration		7.71
Land cost (typical rental value)		71.48
Other (specify)		-
II. Total overhead costs		79.19
TOTAL COSTS FOR SEED COTTON (I + II)		334.09
MINUS - value of cottonseed extracted in ginning at 0.16 cents/kg.		124.16
NET COSTS FOR LINT		209.93
Net costs for lint in US cents per pound		24.54
Rate of exchange used for converting local currency into US dollars	Rs. 9.90 = US$1.00	

Additional remarks:

Country SOUTH AFRICA Crop year 1978/79 1979/80

Yield used (kilos per hectare)	Irrigation	Dry land
for seed (unginned) cotton	2,870	1,500
of which: cotton lint	1,062	495
cotton seed	1,808	1,005

Item	Average estimated cost per hectare		
	Quantity used per ha. (specify unit)	Cost in US$	
		Irrigation 1978/79	Dry land 1979/80
On farm direct costs			
Preharvesting:			
Labor		39.82	45.08
Power		-	-
Equipment		117.29	87.34
Seed		19.27	18.55
Fertilizer		133.01	43.27
Herbicides		6.61	10.69
Insecticides & fungicides		80.25	213.65
Defoliants & other chemicals		11.12	-
Irrigation		14.38	-
Custom or contract work		-	-
Other (specify)		-	-
(A) Subtotal		421.75	418.58
Harvesting:			
Labor		-	84.83
Power		-	-
Equipment		-	22.79
Custom or contract work	Mechanical picking	183.19	-
Other (specify)		-	-
(B) Subtotal		183.19	107.62
(C) Interest on operating capital		-	-
Off farm direct costs			
Transportation to gin		-	-
Ginning (including bagging & ties)		-	-
Other (specify) Insurance		239.96	46.83
(D) Subtotal		239.96	46.83
I. Total direct costs (A+B+C+D)		844.90	573.03
Overhead costs			
Management & administration		-	-
Land cost (typical rental value)		-	-
Other (specify)		-	-
II. Total overhead costs		-	-
TOTAL COSTS FOR SEED COTTON (I + II)		844.90	573.03
MINUS - value of cottonseed extracted in ginning		212.49	124.26
NET COSTS FOR LINT		632.41	448.77
Net costs for lint in US cents per pound		27.01	41.12
	Selling rate R1 = $		
Rate of exchange used for converting local currency into US dollars	1979-03-26: 1.1805	1980-02-29: 1.2364	

Additional remarks: Above mentioned figures are related to Vaalharts irrigation 1978/79, and Natal dry land, 1979/80. According to economical studies only, and not fully fledged production costs/ha, for certain area (soil type) and year of production averages.

Country SPAIN Crop year 1979

Yield used (kilos per hectare)
for seed (unginned) cotton 3,000
of which: cotton lint 1,000
cotton seed 1,900

Item	Average estimated cost per hectare *	
	Quantity used per ha. (specify unit)	Cost in US$
On farm direct costs		
Preharvesting:		
Labor	100 hours	223.00
Power	various	93.00
Equipment		
Seed	70 kgs.	40.00
Fertilizer	900 kgs. various	210.00
Herbicides	2 lts.	30.00
Insecticides & fungicides	5 treatments	178.00
Defoliants & other chemicals		-
Irrigation	7 irrigations	57.00
Custom or contract work	140 hrs. irrigation and various	312.00
Other (specify)		-
(A) Subtotal		1,143.00
Harvesting:		
Labor		-
Power		-
Equipment		-
Custom or contract work	3,000 kgs. at 0.2857	857.00
Other (specify)		-
(B) Subtotal		857.00
(C) Interest on operating capital		30.00
Off farm direct costs		
Transportation to gin		32.00
Ginning (including bagging & ties)		130.00
Other (specify)		-
(D) Subtotal		162.00
I. Total direct costs (A+B+C+D)		2,192.00
Overhead costs		
Management & administration		143.00
Land cost (typical rental value)		257.00
Other (specify)		-
II. Total overhead costs		400.00
TOTAL COSTS FOR SEED COTTON (I + II)		2,592.00
MINUS - value of cottonseed extracted in ginning		489.00
NET COSTS FOR LINT		2,103.00
Net costs for lint in US cents per pound		95.39
Rate of exchange used for converting local currency into US dollars	70 pesetas = US$ 1.00	

Additional remarks:

*Considered as average values in irrigated cultivation and manual picking.

Country SUDAN Crop year 1977/78

Yield used (kilos per hectare)
for seed (unginned) cotton 409
of which: cotton lint 137
cotton seed 272

Item	Average estimated cost per hectare	
	Quantity used per ha. (specify unit)	Cost in US$
On farm direct costs		
Preharvesting:		
Labor		38.16
Power		9.85
Equipment		-
Seed		5.17
Fertilizer		53.77
Herbicides		-
Insecticides & fungicides		99.19
Defoliants & other chemicals		-
Irrigation		38.33
Custom or contract work		23.30
Other (specify) Malaria & Campaign Canal & Gaffairs, Research, Working Account		36.97
(A) Subtotal		304.74
Harvesting:		
Labor	(Picking & Incentives)	85.57
Power		62.49
Equipment	(Sacks & Twine)	8.41
Custom or contract work		-
Other (specify) Handling at cotton station		2.74
(B) Subtotal		159.21
(C) Interest on operating capital		47.91
Off farm direct costs		
Transportation to gin		12.55
Ginning (including bagging & ties)		63.37
Other (specify)		-
(D) Subtotal		75.92
I. Total direct costs (A+B+C+D)		587.78
Overhead costs		
Management & administration		85.39
Land cost (typical rental value)		.48
Other (specify)		-
II. Total overhead costs		85.87
TOTAL COSTS FOR SEED COTTON (I + II)		673.65
MINUS - value of cottonseed extracted in ginning		-
NET COSTS FOR LINT		-
Net costs for lint in US cents per pound		-
Rate of exchange used for converting local currency into US dollars	.49675 LS. = US$1.00	

Additional remarks:

Country SYRIA Crop year 1980/81

Yield used (kilos per hectare)
for seed (unginned) cotton 2,500
of which: cotton lint 925
cotton seed 1,550

Item	Average estimated cost per hectare	
	Quantity used per ha. (specify unit)	Cost in US$
On farm direct costs		
Preharvesting:		
Labor		250.00
Power		294.10
Equipment		-
Seed	100 kgs.	15.38
Fertilizer	880 kgs. of Calnitro & Mono Super Phospate	118.97
Insecticides & fungicides		47.44
Defoliants & other chemicals		-
Irrigation		141.03
Custom or contract work		-
Other (specify) sacks & cords	abt. 20 sacks	50.00
Miscellaneous		10.77
(A) Subtotal		927.69
Harvesting:		
Labor		193.59
Power		-
Equipment		-
Custom or contract work		-
Other (specify) warehousing & Guarding		15.38
(B) Subtotal		208.97
(C) Interest on operating capital		62.82
Off farm direct costs		
Transportation to gin		62.82
Ginning (including bagging & ties)		128.21
Other (specify)		-
(D) Subtotal		191.03
I. Total direct costs (A+B+C+D)		1,390.51
Overhead costs		
Management & administration		-
Land cost (typical rental value)		266.67
Other (specify)		-
II. Total overhead costs		266.67
TOTAL COSTS FOR SEED COTTON (I + II)		1,657.18
MINUS - value of cottonseed extracted in ginning		158.97
NET COSTS FOR LINT		1,498.21
Net costs for lint in US cents per pound		73.47
Rate of exchange used for converting local currency into US dollars	3.90 Syrian pounds = US$1.00	

Additional remarks:
The above data are average figures for the whole country for irrigated cotton.
Non-irrigated cotton is not significant in Syria.

Country THAILAND Crop year 1979/80

Yield used (kilos per hectare)
for seed (unginned) cotton 1,250.00
of which: cotton lint 416.67
cotton seed 833.33

Item	Average estimated cost per hectare 1/	
	Quantity used per ha. (specify unit) 2/	Cost in US$
On farm direct costs		
Preharvesting:		
Labor		146.27
Power 3/		58.72
Equipment 4/		3.70
Seed		4.55
Fertilizer		5.15
Herbicides	)	
Insecticides & fungicides	)	85.15
Defoliants & other chemicals	)	
Irrigation		-
Custom or contract work		-
Other (specify)		-
(A) Subtotal		303.54
Harvesting:		
Labor		73.92
Power		1.76
Equipment		-
Custom or contract work		-
Other (specify)		-
(B) Subtotal		75.68
(C) Interest on operating capital		22.72
Off farm direct costs		
Transportation to gin		5.70
Ginning (including bagging & ties)		66.38
Other (specify) expense for buying seed cotton		2.04
labor		0.41
(D) Subtotal		74.53
I. Total direct costs (A+B+C+D)		476.47
Overhead costs 5/		
Management & administration		-
Land cost (typical rental value)		32.84
Other (specify)		-
II. Total overhead costs		32.84
TOTAL COSTS FOR SEED COTTON (I + II)		509.31
MINUS - value of cottonseed extracted in ginning		105.08
NET COSTS FOR LINT		404.23
Net costs for lint in US cents per pound		44.01
Rate of exchange used for converting local currency into US dollars	20.46 bahts = US$1.00	

Additional remarks: 1/ national average. 2/ not available. 3/ including expenses for using animals. 4/ Including depreciation and repair. 5/ Costs of farm operation only. Preliminary data. Remarks: Net cost for lint is the cost at farm level.
Source: 1. Department of Agricultural Extension. 2. Office of Agricultural Economics. 3. Marketing Organization for Farmers, Ministry of Agriculture and Cooperatives.

Country TURKEY Crop year 1979/80

Yield used (kilos per hectare)
for seed (unginned) cotton 2,120
of which: cotton lint 785
cotton seed 1,256

Item	Average estimated cost per hectare	
	Quantity used per ha. (specify unit)	Cost in US$
On farm direct costs		
Preharvesting:		
Labor		129.79
Power		28.72
Equipment		42.55
Seed		17.50
Fertilizer		26.60
Herbicides		10.71
Insecticides & fungicides		100.00
Defoliants & other chemicals		-
Irrigation		15.00
Custom or contract work		5.71
Other (specify) _____		20.00
(A) Subtotal		396.58
Harvesting:		
Labor		215.43
Power		4.25
Equipment		4.25
Custom or contract work		0.14
Other (specify) _____		-
(B) Subtotal		224.07
(C) Interest on operating capital		74.72
Off farm direct costs		
Transportation to gin		20.00
Ginning (including bagging & ties)		130.00
Other (specify) _____		5.00
(D) Subtotal		155.00
I. Total direct costs (A+B+C+D)		850.37
Overhead costs		
Management & administration		32.00
Land cost (typical rental value)		220.00
Other (specify) _____		-
II. Total overhead costs		252.00
TOTAL COSTS FOR SEED COTTON (I + II)		1,102.37
MINUS - value of cottonseed extracted in ginning		187.46
NET COSTS FOR LINT		914.91
Net costs for lint in US cents per pound		52.87
Rate of exchange used for converting local currency into US dollars	73.70 T.L. = US$1.00	

Additional remarks:

Country UGANDA Crop year 1979/80

Yield used (kilos per hectare)
for seed (unginned) cotton 300
of which: cotton lint 100
cotton seed 200

Item	Average estimated cost per hectare	
	Quantity used per ha. (specify unit)	Cost in US$
On farm direct costs		
Preharvesting:		
Labor	325 man-days	173.00
Power		73.33
Equipment		-
Seed	free	-
Fertilizer		-
Herbicides		-
Insecticides & fungicides	10 lts of DDT	1.43
Defoliants & other chemicals		-
Irrigation		-
Custom or contract work		-
Other (specify)		-
(A) Subtotal		247.76
Harvesting:		
Labor	42 man-days	40.00
Power		-
Equipment		-
Custom or contract work		-
Other (specify) Transport		3.30
(B) Subtotal		43.30
(C) Interest on operating capital		-
Off farm direct costs		
Transportation to gin		-
Ginning (including bagging & ties)		53.33
Other (specify)		-
(D) Subtotal		53.33
I. Total direct costs (A+B+C+D)		344.39
Overhead costs		
Management & administration		-
Land cost (typical rental value)		-
Other (specify)		-
II. Total overhead costs		-
TOTAL COSTS FOR SEED COTTON (I + II)		344.39
MINUS - value of cottonseed extracted in ginning		14.13
NET COSTS FOR LINT		330.26
Net costs for lint in US cents per pound		149.81
Rate of exchange used for converting local currency into US dollars	7.5 U.Shs. = US$1.00	

Additional remarks:

Upland cotton: Average yields and production costs per hectare planted, U.S. and selected regions, 1979 1/

Country UNITED STATES Crop year 1979

Yield used (kilos per hectare)
- for seed (unginned) cotton
- for cotton lint 535 (Southeast) 648 (Delta)

Item	Average estimated cost per hectare	
	Southeast	Delta
	Cost in US$	
On farm direct costs		
Preharvesting:		
Labor	44.44	58.94
Power / Equipment	169.12	179.29
Seed	15.15	13.49
Fertilizer and lime	83.40	57.70
Other chemicals 2/	222.76	152.29
Purchased irrigation water	-	-
Custom or contract work 3/	30.84	22.63
Other (specify)	-	-
(A) Subtotal	565.69	484.34
Harvesting:		
Labor	13.96	14.84
Power / Equipment	98.64	107.57
Custom or contract work	-	-
Other (specify)	-	-
(B) Subtotal	112.60	122.41
(C) Interest on operating capital	100.00	99.21
Off farm direct costs		
Transportation to gin	-	-
Ginning (including bagging & ties)	82.16	101.85
Other (specify)	-	-
(D) Subtotal	82.16	101.85
I. Total direct costs (A+B+C+D)	860.45	807.81
Overhead costs		
Management & administration 4/	88.39	83.15
Land cost (average acquisition value)	82.70	120.44
Other (specify) General farm overhead	23.52	23.10
II. Total overhead costs	194.61	226.69
TOTAL COSTS FOR SEED COTTON (I + II)	1,055.06	1,034.50
MINUS - value of cottonseed extracted in ginning	104.97	148.57
NET COSTS FOR LINT	950.09	885.93
Net costs for lint in US cents per pound	80.55	62.01
Rate of exchange used for converting local currency into US dollars	-	-

Additional remarks:
1/ States included in each region are as follows: Southeast - North Carolina, South Carolina, Georgia and Alabama; Delta - Arkansas, Louisiana, Mississippi, and bordering areas in Missouri and Tennessee; Southwest - Oklahoma and Texas; West - Arizona, California, and New Mexico. 2/ Includes herbicides, insecticides, fungicides and harvest-aid chemicals.

Country UNITED STATES Crop year 1979

Yield used (kilos per hectare)
- for seed (unginned) cotton
- for cotton lint 402 (Southwest) 1,121 (West) 572 (United States)

Item	Average estimated cost per hectare		
	Southwest	West	United States
		Cost in US$	
On farm direct costs			
Preharvesting:			
Labor	64.16	168.63	79.02
Power / Equipment	125.66	291.14	170.53
Seed	15.99	15.05	15.34
Fertilizer and lime	19.62	61.80	36.40
Other chemicals 2/	27.16	207.98	88.68
Purchased irrigation water	4/	57.90	9.66
Custom or contract work 3/	9.91	62.64	21.87
Other (specify)	-	-	-
(A) Subtotal	262.50	865.14	421.50
Harvesting:			
Labor	5.59	17.82	10.14
Power / Equipment	29.00	127.35	56.85
Custom or contract work	-	-	-
Other (specify)	-	-	-
(B) Subtotal	34.59	145.17	66.99
(C) Interest on operating capital	48.41	127.95	73.17
Off farm direct costs			
Transportation to gin	-	-	-
Ginning (including bagging & ties)	76.85	198.17	101.61
Other (specify)	-	-	-
(D) Subtotal	76.85	198.17	101.61
I. Total direct costs (A+B+C+D)	422.35	1,336.43	663.27
Overhead costs			
Management & administration	44.16	137.31	68.62
Land cost (average acquisition value)	81.22	251.65	116.48
Other (specify) General farm overhead	19.05	36.79	22.91
II. Total overhead costs	144.43	425.75	208.01
TOTAL COSTS FOR SEED COTTON (I + II)	566.78	1,762.18	871.28
MINUS - value of cottonseed extracted in ginning	80.65	247.14	121.06
NET COSTS FOR LINT	486.13	1,515.04	750.22
Net costs for lint in US cents per pound	54.85	61.30	59.49
Rate of exchange used for converting local currency into US dollars	-	-	-

3/ Includes custom application of crop chemicals, the cost of chemicals in some cases, and custom harvesting and handling. 4/ Less than one dollar per acre.

Country ZAIRE

Crop year 1979/80

COST OF COTTON PRODUCTION

Yield used (kilos per hectare)	
for seed (unginned) cotton	260
of which : cotton lint	94
cotton seed	157

Rate of exchange : 1 Z = US $ .3326

The cost per pound of lint was estimated at 101.15 US cents per pound