

# **SURVEY OF COST OF PRODUCTION OF RAW COTTON**



**OCTOBER 1982**

41st Plenary Meeting  
of the  
International Cotton  
Advisory Committee  
Cairo, Egypt

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## SURVEY OF COST OF PRODUCTION OF RAW COTTON

### INTRODUCTION

Cotton production costs continue to attract attention. The last Plenary Meeting of the ICAC instructed the Secretariat to conduct another annual survey on costs of producing raw cotton for presentation at the 41st Plenary Meeting. It was felt that continued study of the subject was important in the light of escalating input costs and the decline in cotton prices compared to the 1980/81 season.

The survey questionnaire was sent to all member and non-member cotton producing countries together with explanatory remarks. However, the rate of response was again limited, with 28 countries replying out of about 60 that were contacted. Several major producers did not respond, and many of the replies received were either incomplete or used formats that differed considerably from the standard questionnaire. Ultimately, a sample of 14 countries which replied to the survey for the last two years was selected for the purpose of analyzing costs in 1981 versus 1980. Before going into the results of this sample, however, it should be pointed out that in some responding countries the basic information on costs is not derived from statistically valid farm management surveys, but is more in the nature of approximations containing elements of subjective judgment. Also, differences in methodology of data collection and factors such as subsidy for production inputs in certain countries, rates of which may vary from year to year, add to the difficulty to compare costs between countries or over time.

Furthermore, the problem of making cost comparisons was compounded by substantial changes in currency exchange rates during 1981. In all countries included in the analysis, there was an erosion in the value of the local currency against the U.S. dollar. Hence, costs expressed in terms of current dollars significantly understated actual costs. In fact, the change in exchange rates in the countries considered here was so large that in every instance costs in dollar terms showed a decline in 1981 from the preceding year's level, whereas in terms of local currencies there was a noticeable increase. In Pakistan, for instance, costs in dollars were down by about 6 percent for both per hectare gross cost and net cost per pound, while in terms of the local currency these costs were up by 8 and 7 percent, respectively. In order to eliminate the effect of changes in currency rates, the Secretariat decided to hold the exchange value of the dollar constant for the past 2 years: 1981 costs were taken as reported in dollar terms (Summary Table 1 and Country Tables) and 1980 data were converted into 1981 dollars, using countrywise rates of exchange.

In this survey cotton production costs are again expressed in terms of two main 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.

Based on data from 14 countries, the increase in cotton production costs moderated somewhat in 1981 compared to the previous year. The gross cost per hectare rose by about 14 percent, to an average of \$1,090 (Summary Table 2), compared with the previous year's increase of about 17-1/2 percent. Most of the cost items contributed to the rise in 1981 but the main increases came from large items such as labor, fertilizer, irrigation, ginning, and land. Labor costs, constituting more than a quarter of total cost, went up by 17 percent to nearly \$277 per hectare. Among the various countries, labor costs increased most in Mexico - by over 70 percent. However, substantial gains took place also in Egypt, up 49 percent, and in Tanzania, 36 percent.

Another large increase was in fertilizer costs, which account for some 7 percent of the total. The gain of around 28 percent is attributable to both increased prices as well as higher rates of application. In the United States, the quantity of fertilizer applied to an acre rose from 77.4 pounds of nutrients in 1980 to 92.6 pounds in 1981. Reported fertilizer amounts were also considerably larger than a year earlier in several other countries. Nevertheless, there appeared to be a slowdown in the rate of growth in fertilizer use during recent years as farmers became increasingly cost-conscious in order to cope with higher prices of chemicals and fuel.

Irrigation costs were up by nearly 46 percent last year compared to 1980. The sharpest increase again took place in Mexico, up 142 percent to around \$92 per hectare. Others indicating substantial gains included Iran, up 112 percent; the Philippines, 97 percent; and Turkey, 35 percent. However, the increase in costs in some of these countries may have resulted partly from the fact that data supplied for the two years were not from a uniform set of regions.

The cost of power and equipment rose only by 3.2 percent last year, to approximately \$123 per hectare. However, in terms of individual countries there was a noticeable contrast: while costs of this item declined mostly in countries with relatively little mechanization, sharp increases occurred in the more mechanized cotton producing countries. In many of the developing countries where cotton is produced under "traditional agriculture", mechanization is primarily resorted to for preharvesting operations, such as ploughing, planting, etc.

Among direct on-farm costs, herbicides and other chemicals is the only major category to post a decline, of around 11 percent. Increased prices and foreign exchange limitations appear responsible for decreases in the quantity used.

Direct off-farm costs, represented mostly by ginning costs, increased by over 32 percent due mainly to increased costs associated with gains in yields in a number of countries. The increase was particularly notable in the United States where average yield went up by more than 35 percent. However, in several countries ginning costs went up significantly also because of sharply higher per unit cost of ginning. For instance, in Australia, only \$16.4 were charged for ginning a bale of cotton in 1980, while in 1981 the cost was up to \$66.9. Similarly in Spain, the cost more than doubled, to \$62.5 per bale.

For the 14 countries analyzed here, overhead costs -- mainly for land -- increased substantially in 1981 from the previous year as land gained in value in almost all countries, but especially in Turkey, Mexico, and Iran. The average rental value in 1981 was nearly 56 percent higher than in 1980. By contrast, management cost per hectare was down.

Despite the increased cost of cotton production in almost all countries in 1981 compared to 1980, per pound cost of lint actually declined by nearly 3 percent, to some 65 cents, owing to very good yields. However, there were considerable variations between countries as well as between regions within a country, with per pound net costs ranging from 25.8 cents in Tapachula region of Mexico to over a dollar in several countries (Summary Table 1). Nevertheless, in roughly half of the reporting countries net costs per pound were between 35 and 70 cents per pound.

Caution should be exercised in interpreting the findings in this report too literally because of the limited sample size and shortcomings of some of the basic data. Nonetheless, the analysis does provide indications of the overall trend, and the behavior of individual components, of cotton production costs.

## ENQUETE SUR LES COÛTS DE PRODUCTION DU COTON BRUT

### INTRODUCTION

Les coûts de production du coton continuent d'attirer l'attention. La dernière Réunion plénière a chargé le secrétariat de réaliser une autre enquête annuelle au sujet des coûts de production du coton et d'en présenter les résultats à la 41e Réunion plénière. La poursuite de l'étude de cette question a été jugée importante, compte tenu de l'escalade des coûts des facteurs de production et de la baisse des prix du coton par rapport à la campagne 1980/81.

Le questionnaire de l'enquête, accompagné de notes explicatives, a été envoyé à tous les pays membres et non membres producteurs de coton. Cependant, une fois encore, le nombre de réponses a été limité; en effet, sur une soixantaine de pays contactés, 28 seulement ont répondu. Plusieurs pays gros producteurs n'ont pas répondu et un grand nombre de réponses étaient incomplètes ou employaient une présentation très différente de celle du questionnaire. En dernière analyse, on choisit un échantillon de 14 pays qui ont répondu à l'enquête pendant les deux dernières années, afin de comparer l'analyse des coûts en 1980 et 1981. Cependant, avant d'entrer dans le détail des résultats obtenus grâce à cet échantillon, il convient de faire ressortir que, dans le cas de certains pays, les informations de base concernant les coûts ne sont pas dérivées d'enquêtes sur la gestion des exploitations qui soient valables sur le plan statistique; elles présentent davantage le caractère d'approximations comportant des éléments de jugement subjectif. Par ailleurs, les différences de méthode de collecte des données et des éléments tels que la subvention des facteurs de production, que pratiquent certains pays et dont le barème peut varier d'une année à l'autre, rendent encore plus difficile la comparaison des coûts entre les pays ou dans le temps.

En outre, le problème des comparaisons de coûts a été aggravé par les modifications importantes qui sont intervenues dans les taux de change en 1981. Dans tous les pays sur lesquels porte l'analyse, il y a eu érosion de la valeur de la monnaie locale par rapport au dollar américain. Dans ces conditions, les coûts exprimés en dollars courants sous-estiment de façon sensible les coûts effectifs. En fait, les taux de change des pays examinés ici ont été si profondément modifiés que, dans tous les cas, les coûts exprimés en dollars ont accusé en 1981 une baisse par rapport au niveau de l'année précédente, alors que, exprimés en monnaie locale, leur augmentation était considérable. Au Pakistan, par exemple, les coûts en dollars ont reculé d'environ 6 pour cent, qu'il s'agisse du coût brut à l'hectare ou du coût net à la livre; par contre, exprimés en monnaie locale, ces coûts accusent, respectivement, une augmentation de 8 et 7 pour cent. Afin d'éliminer l'effet des modifications des taux de change, le secrétariat a décidé de considérer comme constante la valeur du dollar au cours des deux dernières années: les coûts de 1981 ont été considérés comme étant exprimés en dollars (Tableau résumé 1 et tableaux nationaux), tandis que les données de 1980 ont été converties en dollars de 1981 sur la base des taux de change nationaux.

Dans la présente enquête, les coûts de production du coton sont exprimés une fois encore en deux catégories principales: 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 dans l'exploitation, ainsi que les coûts hors exploitation, tels que les transports et les frais d'égrenage. Les coûts indirects, ou frais généraux, englobent des rubriques telles que les frais de gestion et le coût des terres. La somme de ces deux catégories représente le coût brut de la production du coton-graine. Le coût net de la fibre s'obtient en soustrayant la valeur du coton-graine du coût brut. Le coût net est également présenté en cents américains la livre.

Sur la base de données de 14 pays, l'accroissement des coûts de production du coton s'est quelque peu ralenti en 1981 par rapport à l'année précédente. Le coût brut à l'hectare a augmenté d'environ 14 pour cent, pour se situer en moyenne à \$1.090 (Tableau résumé 2), alors que l'année précédente la hausse avait atteint en moyenne 17,5 pour cent. La plupart des éléments des coûts sont intervenus dans l'augmentation de 1981; cependant, les augmentations

principales sont celles qui correspondent aux rubriques importantes que sont la main d'oeuvre, les engrais, l'irrigation, l'égrenage et les terres. Les coûts de main d'oeuvre, qui représentent plus du quart du coût total, ont augmenté de 17 pour cent pour atteindre près de \$277 l'hectare. Parmi les divers pays, c'est au Mexique que les coûts de main d'oeuvre se sont le plus accrus - de plus de 70 pour cent. Cependant, les augmentations ont été considérables également en Egypte (49 pour cent) et en Tanzanie (36 pour cent).

Une autre grosse augmentation a concerné les engrais, qui représentent environ 7 pour cent du total. L'accroissement d'environ 28 pour cent s'explique à la fois par la hausse des prix et par l'intensification des taux d'application. Aux Etats-Unis, la quantité d'engrais employés à l'acre est passée de 77,4 livres d'éléments nutritifs en 1980 à 92,6 livres en 1981. Plusieurs autres pays ont également signalé une forte augmentation de la quantité d'engrais employés. Néanmoins, il semble qu'il y ait depuis quelques années un ralentissement du taux de croissance de l'emploi des engrais; en effet, les agriculteurs ont de plus en plus conscience des coûts, eu égard à la hausse des prix des produits chimiques et des carburants.

Les coûts de l'irrigation ont augmenté de presque 46 pour cent l'année dernière par rapport à 1980. La plus forte augmentation se situe une fois de plus au Mexique, où elle est de 142 pour cent pour atteindre environ \$92 l'hectare. D'autres pays indiquent des augmentations importantes: l'Iran, 112 pour cent; les Philippines, 97 pour cent; et la Turquie, 35 pour cent. Cependant, il est possible que l'accroissement des coûts dans ces pays s'explique en partie par le fait que les données fournies ces deux dernières années ne proviennent pas d'une série uniforme de régions.

Le coût de l'énergie et du matériel n'a augmenté que de 3,2 pour cent l'année dernière, pour se situer à environ \$123 l'hectare. Cependant, sur le plan des divers pays, on observe un contraste sensible; alors que, pour cette rubrique, les coûts ont reculé surtout dans les pays qui sont relativement peu mécanisés, de fortes augmentations se sont produites dans les pays où la culture du coton est plus mécanisée. Dans un grand nombre de pays en développement où le coton rentre dans le cadre de l'agriculture traditionnelle, on a surtout recours à la mécanisation pour les travaux qui précèdent la cueillette, tels que le labourage, les plantations, etc.

Parmi les coûts directs à l'exploitation, les herbicides et autres produits chimiques sont la seule grande catégorie qui ait enregistré un recul, qui atteint environ 11 pour cent. La hausse des prix et les problèmes de devises semblent être responsables de la diminution des quantités employées.

Les coûts directs hors exploitation, qui correspondent surtout aux frais d'égrenage, ont augmenté de plus de 32 pour cent, en raison surtout de l'accroissement des coûts associés aux gains de rendements obtenus par un certain nombre de pays. La hausse a été particulièrement sensible aux Etats-Unis, où le rendement moyen a progressé de plus de 35 pour cent. Cependant, dans plusieurs pays, les frais d'égrenage ont augmenté sensiblement en raison aussi du fort accroissement du coût unitaire de l'égrenage. En Australie, par exemple, l'égrenage d'une balle de coton ne coûtait que \$16,4 en 1980, mais il est passé à \$66,5 en 1981. De même, en Espagne, le coût a plus que doublé pour atteindre \$62,5 la balle.

Pour les 14 pays qui sont analysés ici, les frais généraux - surtout pour les terres - ont sensiblement augmenté en 1981 par rapport à l'année précédente; en effet, les terres ont acquis de la valeur dans presque tous les pays mais tout particulièrement en Turquie, au Mexique et en Iran. La valeur locative moyenne dépassait en 1981 de près de 56 pour cent son chiffre de 1980. Par contre, le coût de gestion à l'hectare a diminué.

Malgré l'accroissement du coût de la production cotonnière en 1981 dans presque tous les pays par rapport à 1980, le coût de la livre de fibre a diminué de près de 3 pour cent, pour tomber à environ 65 cents; cette situation s'explique par l'excellence des rendements. Cependant, on observe des variations considérables entre pays, et aussi entre régions d'un même pays: les coûts nets à la livre vont de 25,8 cents dans la région de Tapachula au Mexique

à plus d'un dollar dans plusieurs pays (tableau résumé 1). Néanmoins, dans à peu près la moitié des pays qui ont répondu, les coûts nets à la livre se situaient entre 35 et 70 cents.

Il convient d'interpréter avec prudence les éléments du présent rapport; ceux-ci ne doivent pas être pris trop au pied de la lettre, en raison de la dimension limitée de l'échantillon et des carences de certaines données de base. Néanmoins, l'analyse fournit des indications au sujet de la tendance générale ainsi que du comportement des divers éléments des coûts de production du coton.

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## ENCUESTA SOBRE LOS COSTOS DE PRODUCCION DEL ALGODON EN RAMA

Introducción

Los costos de producción del algodón siguen atrayendo la atención. La última Reunión Plenaria del CCIA dio instrucciones a la Secretaría para que llevara a cabo otra encuesta anual sobre los costos de producción del algodón en rama a fin de presentarla en la 41a. Reunión Plenaria. Se estimó que el estudio continuado de la cuestión era importante habida cuenta de la escalada de los costos de los insumos y del descenso de los precios del algodón comparados con los de la temporada de 1980/81.

El cuestionario de la encuesta se envió a todos los países productores de algodón miembros y no miembros del CCIA junto con algunas observaciones explicativas. Sin embargo, el número de respuestas volvió a ser limitado, ya que de alrededor de 60 países con los que se estableció contacto fueron 28 los que contestaron. Varios de los grandes productores no lo hicieron, y muchas de las respuestas fueron incompletas o bien utilizaron formatos que difieren en medida considerable del cuestionario estándar. Finalmente, a los efectos de analizar los costos en 1981 por comparación con los de 1980, se seleccionó una muestra de 14 países que respondieron a la encuesta en los dos últimos años. Antes de entrar a examinar los resultados de esa muestra debe señalarse, sin embargo, que en algunos de los países que contestaron, la información básica acerca de los costos no se deriva de estudios de administración rural estadísticamente válidos, sino que más bien tienen carácter de aproximaciones que contienen elementos de enjuiciamiento subjetivo. Además, las diferencias en la metodología de la recopilación de datos y factores como el otorgamiento de subsidios para los insumos de producción en algunos países, cuyas tasas pueden variar de un año para otro, contribuyen a que sea más difícil el comparar los costos entre países o en el curso del tiempo.

Por otra parte el problema de hacer comparaciones de costos lo agravaron los cambios sustanciales registrados en los tipos cambiarios durante 1981. En todos los países incluidos en el análisis se produjo una erosión en el valor de la moneda local en relación con el dólar estadounidense. Por consiguiente, los costos expresados en términos de dólares corrientes subestimaron en grado significativo los costos reales. En realidad, las modificaciones en los tipos de cambio de los países que se estudian aquí fueron tan grandes que en cada uno de los casos los costos en términos de dólares mostraron un descenso en 1981 con respecto al nivel del año precedente, en tanto que en términos de las monedas locales el incremento fue apreciable. En el Pakistán, por ejemplo, los costos en dólares declinaron en alrededor del 6 por ciento tanto en lo que se refiere al costo bruto por hectárea como al costo neto por libra, mientras que en términos de la moneda local esos costos se elevaron en el 8 y el 7 por ciento respectivamente. Con objeto de eliminar el efecto de las modificaciones en los tipos cambiarios, la Secretaría decidió mantener el valor de cambio del dólar constante con respecto a los dos últimos años: los costos de 1981 se tomaron tal fueron notificados en términos de dólares (Cuadro resumido 1 y cuadros de los países) y los datos de 1980 fueron convertidos a dólares de 1981, utilizando los tipos cambiarios a nivel de los países.

En esta encuesta los costos de producción del algodón se expresan de nuevo en términos de las dos categorías principales: costos directos e indirectos. Los primeros son los que están claramente asociados con la producción física y comprenden los costos de producción en la finca y la cosecha, así como los costos fuera de la finca, como los cargos por transporte y desmote. Los costos indirectos o generales incluyen rubros como administración y los costos de la tierra. La suma de esas dos categorías constituye el costo bruto de la producción de algodón con semilla. El costo neto de la fibra de algodón se obtiene sustrayendo 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.



Con base en los datos de los 14 países, el incremento en los costos de producción del algodón se moderó un tanto en 1981 en comparación con el año anterior. El costo bruto por hectárea se elevó en alrededor del 14 por ciento, para llegar a un promedio de \$1.090 (Cuadro resumido 2), comparado con el alza del año precedente de alrededor del 17,5 por ciento. La mayoría de las partidas de costos contribuyó al aumento en 1981, pero los incrementos principales provinieron de rubros grandes como mano de obra, fertilizantes, riego, desmote y tierra. Los costos de la mano de obra, que constituyeron más de una cuarta parte del costo total, ascendieron en el 17 por ciento para llegar a casi \$277 por hectárea. Entre los varios países, donde más aumentaron los costos de la mano de obra fue en México, más del 70 por ciento. Sin embargo, también se registraron incrementos sustanciales en Egipto, donde el ascenso fue del 49 por ciento, y en Tanzania, del 36 por ciento.

Otro incremento grande fue el de los costos de fertilizantes, que representan alrededor del 7 por ciento del total. La ganancia aproximada del 28 por ciento cabe atribuirla tanto a las alzas de los precios como a las tasas más elevadas de aplicación. En los Estados Unidos la cantidad de fertilizante aplicado a un acre se elevó de 77,4 libras de nutrientes en 1980 a 92,6 libras en 1981. Las cantidades notificadas de fertilizantes también fueron considerablemente mayores que un año antes en varios países. De todos modos pareció observarse una desaceleración en la tasa de crecimiento de utilización de fertilizantes durante los últimos años ya que los agricultores fueron cada vez más conscientes de los costos al tener que enfrentarse a los precios más elevados de productos químicos y combustibles.

Los costos de riego subieron casi el 46 por ciento el año pasado comparados con los de 1980. El aumento más acentuado también tuvo lugar en México, donde el incremento fue del 142 por ciento para llegar a unos \$92 por hectárea. Otros países que indicaron alzas sustanciales fueron el Irán, hasta el 112 por ciento, Filipinas, 97 por ciento, y Turquía, 35 por ciento. Ahora bien, el alza en los costos en algunos de estos países es posible que se haya debido en parte a que los datos suministrados con respecto a los dos años no fueron de un conjunto uniforme de regiones.

El costo de energía y equipo se elevó en sólo el 3,2 por ciento el año pasado, con lo que llegó a aproximadamente \$123 por hectárea. Sin embargo, en lo que se refiere a países individuales hubo un contraste notable: en tanto que los costos de ese rubro bajaron sobre todo en países con poca mecanización relativamente, en los países productores de algodón más mecanizados se registraron aumentos más acentuados. En muchos de los países en desarrollo donde el algodón se produce en condiciones de "agricultura tradicional", se recurre a la mecanización principalmente para las operaciones previas a la de la cosecha, como arado, siembra, etc.

Entre los costos directos en la finca, los herbicidas y otros productos químicos constituyen la única categoría de importancia que registró un descenso de alrededor del 11 por ciento. Los precios más elevados y las limitaciones de divisas parecen ser los factores a los que cabe atribuir los descensos en las cantidades utilizadas.

Los costos directos fuera de la finca, representados en su mayor parte por los costos de desmote, aumentaron en más del 32 por ciento debido sobre todo a los mayores costos asociados con las ganancias en los rendimientos en varios países. El aumento fue particularmente notable en los Estados Unidos, donde el rendimiento medio se elevó en más del 35 por ciento. Sin embargo, en varios países también se elevaron en escala significativa los costos de desmote debido al costo señaladamente más alto por costo unitario de desmote. En Australia, por ejemplo, sólo se cargaron \$16,4 por desmotar un fardo de algodón en 1980, en tanto que en 1981 ese costo ascendió a \$66,9. De manera análoga en España el costo fue mayor del doble y llegó a \$62,5 por fardo.

En lo que respecta a los 14 países analizados aquí, los costos generales -principalmente los correspondientes a tierras- se incrementaron en medida sustancial en 1981 en relación con el año anterior ya que la tierra ganó en valor en casi todos los países, pero en especial en Turquía, México e Irán. El valor medio de renta en 1981 fue casi el 56 por ciento más alto

que en 1980. En contraste, los costos de administración por hectárea descendieron.

Pese al mayor costo de la producción de algodón en casi todos los países en 1981 por comparación con 1980, el costo por libra de la fibra de algodón declinó de hecho en casi el 3 por ciento, a unos 65 centavos, debido a que los rendimientos fueron muy buenos. De todos modos hubo considerables variaciones entre países así como entre regiones dentro del mismo país, ya que los costos netos por libra oscilaron desde 25,8 centavos en la región de Tapachula, México, a más de un dólar en varios otros países (Cuadro resumido 1). No obstante, en la mitad aproximadamente de los países que enviaron informes, los costos netos por libra fluctuaron entre 35 y 70 centavos por libra.

Debe procederse con cuidado para no interpretar demasiado literalmente las conclusiones de este informe, dado el tamaño limitado de la muestra y las deficiencias de algunos de los datos básicos. En cualquier caso el análisis sí proporciona indicaciones de la tendencia general, y del comportamiento de los componentes individuales de los costos de producción del algodón.

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Summary Table 1 - Cost of cotton production for all reporting countries, 1981  
 Coût de production du coton pour tous les pays ayant fourni des informations pour 1981  
 Costos de la producción de algodón correspondientes a todos los países que enviaron información, 1981.

Country	Cost per ha. (\$US)/Coût par ha. (\$EU) Costo por ha. (\$EU)		Net cost per pound (¢US) Coût net par livre (¢EU) Costo neto por libra(¢EU)
	Gross cost	Net cost	
Argentina 1/ . . . . .	370.3	-	-
Australia 2/ . . . . .	1,475.0	1,297.0	53.48
Bangladesh . . . . .	421.3	329.0	40.60
Colombia			
Costa-Meta . . . . .	1,118.3	-	-
Tolimas . . . . .	1,271.8	-	-
Valle del Cauca . . . . .	1,447.1	-	-
Dominican Rep. . . . .	64.9	60.4	121.75
Egypt . . . . .	882.9	813.0	36.62
El Salvador . . . . .	2,085.1	1,884.9	98.22
Honduras (1980) 3/ . . . . .	2,254.0	-	-
Indonesia . . . . .	450.4	412.0	64.44
Iran . . . . .	1,605.0	1,223.0	115.57
Israel . . . . .	3,340.4	2,769.4	78.51
Kenya 4/ . . . . .	459.7	-	-
Mexico			
Mexicali, B.C.N. . . . .	997.4	736.3	36.15
Tapachula, Chis. . . . .	675.0	451.2	25.84
Comarca Lagunera . . . . .	1,170.3	859.5	35.44
Chihuahua . . . . .	998.9	770.1	43.18
Nicaragua . . . . .	1,618.5	1,507.8	102.51
Niger 5/ . . . . .	1,550.0	1,499.0	63.78
Pakistan . . . . .	377.2	232.0	27.40
Philippines . . . . .	629.8	-	-
Spain . . . . .	2,882.0	2,482.0	107.22
Sudan . . . . .	490.5	-	-
Syria . . . . .	1,801.3	1,594.6	78.21
Tanzania 6/ . . . . .	504.5	437.4	185.42
Thailand . . . . .	684.7	592.6	58.69
Turkey			
Aegean . . . . .	1,165.0	803.0	39.08
Antalya . . . . .	1,016.9	867.1	37.86
Uganda . . . . .	87.1	73.0	56.16
United States			
Southeast . . . . .	1,394.2	1,308.8	99.61
Delta . . . . .	1,258.1	1,176.0	91.65
Southwest . . . . .	753.6	689.7	75.57
West . . . . .	2,385.8	2,172.7	76.46
Upper Volta . . . . .	313.0	291.4	42.50
Zimbabwe 7/ . . . . .	968.3	835.9	72.22

1/ Chaco province only. 2/ Queensland only. 3/ Simple average of small and large farms.  
 4/ Excludes cotton intersown with other crops. 5/ Irrigated area only. 6/ Small farms only.  
 7/ Dryland only.

Summary Table 2 - Per hectare cost (simple average) of raw cotton production for fourteen countries, 1980 and 1981  
 Coût de production du coton brut par hectare (moyenne simple) pour quatorze pays, en 1980 et 1981.  
 Costo por hectárea (promedio simple) de la producción de algodón en bruto para catorce países, 1980 y 1981.

Item	1980*	1981	1981 versus 1980			Rubrique/Rubro
			Change/ Cambio	Relative shares/Part. relative/Part.relat.		
				1980	1981	
	<u>In US dollars/En dollars des EU/En dolares de EU.UU.</u>		<u>Percent/Pourcentage/Porcentaje</u>			
<u>On farm direct costs</u>						<u>Coûts directs à l'exploitation/ Costos directos en el fundo agrícola</u>
<u>Preharvesting</u>						<u>Avant la récolte/Antes de la cosecha</u>
Labor . . . . .	145.5	169.0	16.2	15.2	15.5	Main d'oeuvre/Mano de obra
Power and Equipment . . .	104.2	110.7	6.2	10.9	10.2	Energie et matériel/Fuerza motriz y equipo
Seed . . . . .	12.8	13.4	4.7	1.3	1.2	Semences/Semilla
Fertilizer . . . . .	61.0	78.1	28.0	6.4	7.2	Engrais/Fertilizante
Herbicides & others . . .	106.5	95.1	- 10.7	11.1	8.7	Herbicides et autres/Herbicidas y otros
Irrigation . . . . .	33.2	48.4	45.8	3.5	4.4	Irrigation/Irrigación
Custom work . . . . .	16.3	19.6	20.2	1.7	1.8	Travaux à façon/Trabajo encargado
Others . . . . .	34.4	28.8	- 16.3	3.6	2.6	Autres/Otros
SUB-TOTAL . . . . .	514.9	563.1	9.4	53.7	51.6	TOTAL PARTIEL/TOTAL PARCIAL
<u>Harvesting</u>						<u>Récolte/Cosecha</u>
Labor . . . . .	91.1	107.8	18.3	9.5	9.9	Main d'oeuvre/Mano de obra
Power and Equipment . . .	14.7	12.0	- 18.4	1.5	1.1	Energie et matériel/Fuerza motriz y equipo
Custom work . . . . .	51.1	63.0	23.3	5.3	5.8	Travaux à façon/Trabajo encargado
Others . . . . .	3.4	2.3	- 32.4	0.4	0.2	Autres/Otros
SUB-TOTAL . . . . .	160.3	185.1	15.5	16.7	17.0	TOTAL PARTIEL/TOTAL PARCIAL
Interest . . . . .	46.8	47.6	1.7	4.9	4.4	Intérêts/Intereses
<u>Off farm direct costs</u>						<u>Coûts directs en dehors de l'exploitation/ Costos directos incurridos fuera del fundo agrícola</u>
Transportation . . . . .	16.4	19.0	15.9	1.7	1.7	Transports/Transporte
Ginning and ties . . . . .	63.2	88.8	40.5	6.6	8.1	Egrenage et cerclage/Desmote y amarres
Other . . . . .	5.0	4.0	- 20.0	0.5	0.4	Autres/Otros
SUB-TOTAL . . . . .	84.6	111.8	32.2	8.8	10.2	TOTAL PARTIEL
<u>I - Total direct costs</u>	805.7	907.6	12.7	84.2	83.2	<u>I - Total des coûts directs/Total de costos directos</u>
<u>Overhead costs</u>						<u>Frais généraux/Costos generales fijos</u>
Management . . . . .	68.8	51.4	- 25.3	7.2	4.7	Gestion/Manejo
Land cost (rent) . . . . .	78.3	122.0	55.8	8.2	11.2	Coût des terrains (loc.)/Costo del Terreno (Alq.)
Others . . . . .	4.4	9.0	104.6	0.4	0.8	Autres/Otros
<u>II - Total overhead costs</u>	151.5	182.4	20.4	15.8	16.7	<u>II - Total frais généraux/Total costos generales fijos</u>
TOTAL COST - seed cotton	956.5	1,090.2	14.0	100.0	100.0	TOTAL DES COÛTS - coton graine/ COSTOS TOTALES - Algodón con semilla
Per pound cost for lint in US cents (weighted)	67.03	65.13	-2.8			Coûts nets de la fibre en cents des E.U. la livre (pondéré)/Costos netos de la fibra en centavos de EE.UU. por libra (ponderado)

\*1980 figures have been converted into 1981 dollars using appropriate exchange rates./\*Les chiffres de 1980 ont été convertis en dollars de 1981 en utilisant les taux de change appropriés./\*Las cifras correspondientes a 1980 han sido convertidas a dolares de 1981 utilizandose las tasas de cambio pertinentes.

Country ARGENTINA Crop year 1981/82\*  
 Yield used (kilos per hectare)  
 for seed (unginned) cotton 1,000  
 of which: Cotton lint \_\_\_\_\_  
 Cotton seed \_\_\_\_\_

Item	Average estimated cost per hectare	
	Quantity used per ha. (specify unit)	Cost in US\$
<u>On farm direct costs</u>		
<u>Preharvesting:</u>		
Labor . . . . .	16.2 hours	21.09
Power . . . . .		69.11
Equipment . . . . .		
Seed . . . . .	40 kgs	8.72
Fertilizer . . . . .	2 liters	11.47
Herbicides . . . . .	4.4 kgs	47.33
Insecticides & fungicides . . . . .		
Defoliant & other chemicals . . . . .		
Irrigation . . . . .		
Custom or contract work . . . . .	6 man-days	21.94
Other (specify) _____		
(A) Subtotal . . . . .		179.66
<u>Harvesting:</u>		
Labor . . . . .		
Power . . . . .		
Equipment . . . . .		
Custom or contract work . . . . .	21 man-days	119.95
Other (specify) <u>Bags</u> . . . . .	25	5.21
<u>Yarn</u> . . . . .	0.330 kgs	0.52
<u>Packs</u> . . . . .	15	0.64
(B) Subtotal . . . . .		126.32
(C) <u>Interest on operating capital</u> . . . . .		6.12
<u>Off farm direct costs</u>		
Transportation to gin . . . . .		
Ginning (including bagging & ties)		
Other (specify) _____		
(D) Subtotal . . . . .		-
I. <u>Total direct costs (A+B+C+D)</u> . . . . .		312.10
<u>Overhead costs</u>		
Management & administration . . . . .		50.50
Land cost (typical rental value)		2.37
Other (specify) <u>Farm improvement</u>		5.35
II. <u>Total overhead costs</u> . . . . .		58.22
TOTAL COSTS FOR SEED COTTON (I + II)		370.32
MINUS - value of cottonseed extracted in ginning . . . . .		-
NET COSTS FOR LINT . . . . .		-
<u>Net costs for lint in US cents per pound</u>		
Rate of exchange used for converting local currency into US dollars . . . . .		-
<u>Additional remarks:</u> *In the Chaco Province only		

Yield used (kilos per hectare)  
 for seed (unginned) cotton 3,060  
 of which: Cotton lint 1,100  
 Cotton seed 1,760

Country Australia\* Crop year 1980/81

Item	Average estimated cost per hectare	
	Quantity used per ha. (specify unit)	Cost in US\$
<u>On farm direct costs</u>		
<u>Preharvesting:</u>		
Labor . . . . .		218
Power . . . . .	Fuel	71
Equipment . . . . .	Repair & Maintenance	127
Seed . . . . .		14
Fertilizer . . . . .		145
Herbicides . . . . .		12
Insecticides & fungicides . . . . .		64
Defoliant & other chemicals . . . . .		30
Irrigation . . . . .		50
Custom or contract work . . . . .		175
Other (specify) _____		
(A) Subtotal . . . . .		906
<u>Harvesting:</u>		
Labor . . . . .		20
Power . . . . .	Fuel	14
Equipment . . . . .	Repair & Maintenance	25
Custom or contract work . . . . .		
Other (specify) _____		
(B) Subtotal . . . . .		59
(C) <u>Interest on operating capital</u> . . . . .		32
<u>Off farm direct costs</u>		
Transportation to gin . . . . .		46
Ginning (including bagging & ties)		192
Other (specify) _____		
(D) Subtotal . . . . .		238
I. <u>Total direct costs (A+B+C+D)</u> . . . . .		1,235
<u>Overhead costs</u>		
Management & administration . . . . .		140
Land cost (typical rental value)		100
Other (specify) _____		
II. <u>Total overhead costs</u> . . . . .		240
TOTAL COSTS FOR SEED COTTON (I + II)		1,475
MINUS - value of cottonseed extracted in ginning . . . . .		178
NET COSTS FOR LINT . . . . .		1,297
Net costs for lint in US cents per pound		53.48
Rate of exchange used for converting local currency into US dollars . . . . .	AS1 = US\$1.10	

Additional remarks: \*In the State of Queensland only.

The area is 100 km from a gin.

	Country	BANGLADESH	Crop year	1981/82
Yield used (kilos per hectare)				
for seed (unginned) cotton	1,102.60			
of which: Cotton lint	367.54			
Cotton seed	735.07			

Item	Average estimated cost per hectare	
	Quantity used per ha. (specify unit)	Cost in US\$
<u>On farm direct costs</u>		
<u>Preharvesting:</u>		
Labor . . . . .	118 manual labor	66.12
Power . . . . .	24 pairs of bullocks	}
Equipment . . . . .	Local simple equipment	
Seed . . . . .	22.97 kgs	2.88
Fertilizer . . . . .	Manure & NPK 4915.79 kgs	52.25
Herbicides . . . . .		
Insecticides & fungicides . . . . .	4.48 kgs	59.98
Defoliant & other chemicals . . . . .		
Irrigation . . . . .	2 irrigations	17.30
Custom or contract work . . . . .		
Other (specify) . . . . .		
(A) Subtotal . . . . .		215.34
<u>Harvesting:</u>		
Labor . . . . .	37 manual labor	20.73
Power . . . . .		
Equipment . . . . .		
Custom or contract work . . . . .		
Other (specify) . . . . .		
(B) Subtotal . . . . .		20.73
(C) Interest on operating capital . . . . .		14.17
<u>Off farm direct costs</u>		
Transportation to gin . . . . .		7.00
Ginning (including bagging & ties)		18.68
Other (specify) . . . . .		
(D) Subtotal . . . . .		25.68
I. Total direct costs (A+B+C+D) . . . . .		275.92
<u>Overhead costs</u>		
Management & administration . . . . .		6.92
Land cost (typical rental value)		138.41
Other (specify) . . . . .		
II. Total overhead costs . . . . .		145.33
TOTAL COSTS FOR SEED COTTON (I + II)		421.25
MINUS - value of cottonseed extracted in ginning . . . . .		92.28
NET COSTS FOR LINT . . . . .		328.97
Net costs for lint in US cents per pound		40.60
Rate of exchange used for converting local currency into US dollars . . . . .	Tk 21.414 = US\$1.00	
Additional remarks:		

Country COLOMBIA Crop year 1981/82  
 Yield used (kilos per hectare)  
 for seed (unginned) cotton 1,900 Tolimas 1,600 Costa Meta 2,000 Valle  
 of which: Cotton lint \_\_\_\_\_ Del Cauca  
 Cotton seed \_\_\_\_\_

Item	Average estimated cost per hectare		
	Cost in US\$		
	Tolimas	Costa-Meta	Valle Del Cauca
<b>On farm direct costs</b>			
<u>Preharvesting:</u>			
Labor . . . . .	126.33	136.33	152.29
Power . . . . .			
Equipment . . . . .			
Seed . . . . .	12.89	13.06	12.89
Fertilizer . . . . .	81.27	93.89	110.31
Herbicides . . . . .	32.18	34.39	38.59
Insecticides & fungicides . . . . .	174.06	155.96	90.24
Defoliants & other chemicals . . . . .	-	-	-
Irrigation . . . . .	57.18	-	137.50
Custom or contract work . . . . .	-	-	-
Other <u>chopping, stalk</u>	67.03	82.57	77.35
<u>destruction, transport inputs &amp; labor</u>	10.74	14.68	12.03
(A) Subtotal . . . . .	561.68	530.88	631.20
<u>Harvesting:</u>			
Labor . . . . .	215.30	160.11	225.87
Power . . . . .			
Equipment . . . . .			
Custom or contract work . . . . .			
Other <u>Transport inputs</u>	10.74	14.68	12.03
and labor			
(B) Subtotal . . . . .	226.04	174.79	237.90
(C) <u>Interest on operating capital</u> . . . . .	44.12	51.14	44.12
<u>Off farm direct costs</u>			
<u>Transportation to gin</u> . . . . .	21.49	25.23	23.03
Ginning (including bagging & ties)	102.37	73.23	107.73
Other (specify) <u>Benefits, Insurance</u>	15.28		17.51
<u>Quota &amp; Technical assistance</u>	104.88	115.32	148.40
(D) Subtotal . . . . .	244.02	213.78	296.67
I. <u>Total direct costs (A+B+C+D)</u> . . . . .	1,075.87	970.59	1,209.90
<u>Overhead costs</u>			
Management & administration . . . . .	32.66	27.52	39.53
Land cost (typical rental value)	137.50	91.74	171.88
Other (specify) <u>Family subsidy,</u>	17.19	17.43	17.19
<u>Roads, fences and drainage</u>	8.59	11.01	8.59
II. <u>Total overhead costs</u> . . . . .	195.94	147.71	237.19
TOTAL COSTS FOR SEED COTTON (I + II)	1,271.80	1,118.29	1,447.08
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 . . . . .	58.18 pesos = US\$1.00		
<u>Additional remarks:</u>			



	Country	DOMINICAN REPUBLIC	Crop year	1981/82
Yield used (kilos per hectare)				
for seed (unginned) cotton	69			
of which: Cotton lint	22.5			
Cotton seed	34.5			

Item	Average estimated cost per hectare	
	Quantity used per ha. (specify unit)	Cost in US\$
<u>On farm direct costs</u>		
<u>Preharvesting:</u>		
Labor . . . . .	1 person	2.55
Power . . . . .	1 tractor	9.40
Equipment . . . . .	1 (burrow, plough, others)	2.13
Seed . . . . .	4 pounds	2.00
Fertilizer . . . . .	variable unit	8.50
Herbicides . . . . .	"	3.20
Insecticides & fungicides . . . . .	"	8.40
Defoliant & other chemicals . . . . .	-	-
Irrigation . . . . .	Labor & equipment	8.50
Custom or contract work . . . . .		
Other (specify) _____		
(A) Subtotal . . . . .		44.68
<u>Harvesting:</u>		
Labor . . . . .	2 persons	14.60
Power . . . . .	-	-
Equipment . . . . .	-	-
Custom or contract work . . . . .		
Other (specify) _____		
(B) Subtotal . . . . .		14.60
(C) Interest on operating capital . . . . .		-
<u>Off farm direct costs</u>		
Transportation to gin . . . . .		1.90
Ginning (including bagging & ties)		1.25
Other (specify) _____		
(D) Subtotal . . . . .		3.15
I. Total direct costs (A+B+C+D) . . . . .		62.43
<u>Overhead costs</u>		
Management & administration * . . . .		2.50
Land cost (typical rental value)		
Other (specify) _____		
II. Total overhead costs . . . . .		2.50
TOTAL COSTS FOR SEED COTTON (I + II)		64.93
MINUS - value of cottonseed extracted in ginning . . . . .		4.54
NET COSTS FOR LINT . . . . .		60.39
Net costs for lint in US cents per pound		121.75
Rate of exchange used for converting local currency into US dollars . . . .		RS\$1.00 = US\$1.00
<u>Additional remarks:</u>		
*On the basis of the general salary from INDA		

Country EGYPT Crop year 1981/82  
 Yield used (kilos per hectare)  
 for seed (unginned) cotton 2,676,969  
 of which: Cotton lint 1,006,943  
 Cotton seed 1,611,280

Item	Average estimated cost per hectare	
	Quantity used per ha. (specify unit)	Cost in US\$
<u>On farm direct costs</u>		
<u>Preharvesting:</u>		
Labor . . . . .	Land preparation & cultural operations	212.19
Power . . . . .	Ploughing with tractor & draught animals w. implements	75.84
Equipment . . . . .	166 kgs	6.38
Seed . . . . .	48 m <sup>3</sup> manure + 238 kgs super-phosphate + 714 kgs ammonium nitrate	115.22
Fertilizer . . . . .	2-3 aerial sprays	35.61
Insecticides & fungicides . . . . .	9 irrigations	-
Defoliant & other chemicals . . . . .	-	-
Irrigation . . . . .	-	-
Custom or contract work . . . . .	-	-
Other (specify) _____	-	-
(A) Subtotal . . . . .		445.24
<u>Harvesting:</u>		
Labor (including transportation to gin) . . . . .		256.64
Power . . . . .		
Equipment . . . . .		
Custom or contract work . . . . .		
Other (specify) _____		
(B) Subtotal . . . . .		256.64
(C) Interest on operating capital . . . . .		
<u>Off farm direct costs</u>		
Transportation to gin . . . . .		Included in harvesting costs
Ginning (including bagging & ties) . . . . .		-
Other (specify) _____		-
(D) Subtotal . . . . .		
I. Total direct costs (A+B+C+D) . . . . .		701.88
<u>Overhead costs</u>		
Management & administration . . . . .		-
Land cost (typical rental value) . . . . .		181.01
Other (specify) _____		-
II. Total overhead costs . . . . .		181.01
TOTAL COSTS FOR SEED COTTON (I + II)		882.89
MINUS - value of cottonseed extracted in ginning . . . . .		69.94
NET COSTS FOR LINT . . . . .		812.95
Net costs for lint in US cents per pound		36.62
Rate of exchange used for converting local currency into US dollars . . . . .	81.3 piastres = US\$1.00	
<u>Additional remarks:</u>		

Yield used (kilos per hectare) Country EL SALVADOR Crop year 1981/82  
 for seed (unginned) cotton 2,271.57  
 of which: Cotton lint 870.47  
 Cotton seed 1,297.30

Item	Average estimated cost per hectare	
	Quantity used per ha. (specify unit)	Cost in US\$
<u>On farm direct costs</u>		
<u>Preharvesting:</u>		
Labor . . . . .		182.21
Power . . . . .		183.33
Equipment . . . . .		23.64
Seed . . . . .		12.36
Fertilizer . . . . .		160.25
Herbicides . . . . .		
Insecticides & fungicides . . . . .		486.48
Defoliant & other chemicals . . . . .		
Irrigation . . . . .		
Custom or contract work . . . . .		
Other (specify) <u>aerial spray</u>		103.02
(A) Subtotal . . . . .		1,151.29
<u>Harvesting:</u>		
Labor . . . . .		360.57
Power . . . . .		
Equipment . . . . .		
Custom or contract work . . . . .		
Other (specify) _____		
(B) Subtotal . . . . .		360.57
(C) <u>Interest on operating capital</u> . . . . .		129.03
<u>Off farm direct costs</u>		
Transportation to gin . . . . .		20.03
Ginning (including bagging & ties)		197.58
Other (specify) _____		
(D) Subtotal . . . . .		217.61
I. <u>Total direct costs (A+B+C+D)</u> . . . . .		1,858.50
<u>Overhead costs</u>		
Management & administration . . . . .		48.65
Land cost (typical rental value)		171.70
Other (specify) <u>Insurance</u>		6.29
II. <u>Total overhead costs</u> . . . . .		226.64
TOTAL COSTS FOR SEED COTTON (I + II)		2,085.14
MINUS - value of cottonseed extracted in ginning . . . . .		200.20
NET COSTS FOR LINT . . . . .		1,884.94
Net costs for lint in US cents per pound		98.22
Rate of exchange used for converting local currency into US dollars . . . . .	Colon 1.00 = US\$ 0.40	
<u>Additional remarks:</u>		

Yield used (kilos per hectare)  
 for seed (unginned) cotton 4,357  
 of which: Cotton lint \_\_\_\_\_  
           Cotton seed \_\_\_\_\_

Country HONDURASCrop year 1980/81

Item	Average estimated cost per hectare	
	Cost in US\$	
	Small farms	Large farms
<u>On farm direct costs</u>		
<u>Preharvesting:</u>		
Labor . . . . .	256.33	399.53
Power . . . . .		
Equipment . . . . .		
Seed . . . . .	21.48	21.48
Fertilizer . . . . .	214.80	257.76
Herbicides . . . . .	-	71.60
Insecticides & fungicides . . . . .	644.40	756.10
Defoliant & other chemicals . . . . .		
Irrigation . . . . .		
Custom or contract work . . . . .		
Other (specify) <u>aerial spray</u>	325.06	416.71
(A) Subtotal . . . . .	1,462.07	1,923.18
<u>Harvesting:</u>		
Labor . . . . .	193.32	322.20
Power . . . . .		
Equipment . . . . .		
Custom or contract work . . . . .		
Other (specify) <u>sacs &amp; others</u>	14.32	14.32
(B) Subtotal . . . . .	207.64	336.52
(C) <u>Interest on operating capital</u> . . . . .	77.33	100.24
<u>Off farm direct costs</u>		
Transportation to gin . . . . .	150.36	250.60
Ginning (including bagging & ties)		
Other (specify) _____		
(D) Subtotal . . . . .	150.36	250.60
I. <u>Total direct costs (A+B+C+D)</u> . . . . .	1,897.40	2,610.54
<u>Overhead costs</u>		
Management & administration . . . . .		
Land cost (typical rental value)		
Other (specify) _____		
II. <u>Total overhead costs</u> . . . . .		
TOTAL COSTS FOR SEED COTTON (I + II)		
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 . . . . .		
Additional remarks:		

Yield used (kilos per hectare)  
 for seed (unginned) cotton 832  
 of which: Cotton lint 290  
 Cotton seed 499

Country INDONESIACrop year 1980/81

Item	Average estimated cost per hectare	
	Quantity used per ha. (specify unit)	Cost in US\$
<u>On farm direct costs</u>		
<u>Preharvesting:</u>		
Labor . . . . . )		
Power . . . . . )		
Equipment . . . . . )	Manual	23.08
Seed . . . . . )	35 kgs	5.40
Fertilizer . . . . . )	300 kgs	32.31
Herbicides . . . . . )		
Insecticides & fungicides . . . . . )	15.6 liters	21.60
Defoliant & other chemicals . . . . . )		
Irrigation . . . . . )		
Custom or contract work . . . . . )		
Other (specify) . . . . . )		
(A) Subtotal . . . . .		82.39
<u>Harvesting:</u>		
Labor . . . . . )		
Power . . . . . )		
Equipment . . . . . )	hand picking	15.38
Custom or contract work . . . . . )		
Other (specify) . . . . . )		
(B) Subtotal . . . . .		15.38
(C) Interest on operating capital . . . . .		6.98
<u>Off farm direct costs</u>		
Transportation to gin . . . . . )		
Ginning (including bagging & ties) . . . . . )		162.56
Other (specify) <u>Operational cost on extension work to farmers</u> . . . . . )		149.76
(D) Subtotal . . . . .		312.32
I. Total direct costs (A+B+C+D) . . . . .		417.07
<u>Overhead costs</u>		
Management & administration . . . . .		33.28
Land cost (typical rental value) . . . . .		-
Other (specify) . . . . .		-
II. Total overhead costs . . . . .		33.28
TOTAL COSTS FOR SEED COTTON (I + II)		450.35
MINUS - value of cottonseed extracted in ginning . . . . .		38.38
NET COSTS FOR LINT . . . . .		411.97
Net costs for lint in US cents per pound		64.44
Rate of exchange used for converting local currency into US dollars . . . . .	Rp. 650 = US\$1.00	
<u>Additional remarks:</u>		

The costs are the averages of private and government owned estates.  
 A, B, C, done by smallholders (farmers), and D, I and II by private/government owned estates.

Yield used (kilos per hectare)  
 for seed (unginned) cotton 1,500  
 of which: Cotton lint 480  
 Cotton seed 900

Country IRANCrop year 1981/82

Item	Average estimated cost per hectare	
	Quantity used per ha. (specify unit)	Cost in US\$
<u>On farm direct costs</u>		
<u>Preharvesting:</u>		
Labor . . . . .	50 man-days	318
Power . . . . .		
Equipment . . . . .		84
Seed . . . . .	60 kqs	22
Fertilizer . . . . .	200 kqs	25
Herbicides . . . . .		-
Insecticides & fungicides . . . . .	3 sprays	150
Defoliants & other chemicals . . . . .		-
Irrigation . . . . .	6 irrigations	254
Custom or contract work . . . . .		-
Other (specify) _____		
(A) Subtotal . . . . .		853
<u>Harvesting:</u>		
Labor . . . . .	40 man-days	254
Power . . . . .		
Equipment . . . . .		
Custom or contract work . . . . .		
Other (specify) _____		
(B) Subtotal . . . . .		254
(C) Interest on operating capital . . . . .		20
<u>Off farm direct costs</u>		
Transportation to gin . . . . .		25
Ginning (including bagging & ties) Other (specify) _____		129
(D) Subtotal . . . . .		154
I. Total direct costs (A+B+C+D) . . . . .		1,281
<u>Overhead costs</u>		
Management & administration . . . . .		70
Land cost (typical rental value) Other (specify) _____		254
II. Total overhead costs . . . . .		324
TOTAL COSTS FOR SEED COTTON (I + II)		1,605
MINUS - value of cottonseed extracted in ginning . . . . .		382
NET COSTS FOR LINT . . . . .		1,223
Net costs for lint in US cents per pound		115.57
Rate of exchange used for converting local currency into US dollars . . . . .	Rials 78.5 = US\$1.00	
<u>Additional remarks:</u>		

Yield used (kilos per hectare)  
 for seed (unginned) cotton 4,810  
 of which: Cotton lint 1,600  
 Cotton seed 2,686

Country ISRAELCrop year 1981/82

Item	Average estimated cost per hectare	
	Quantity used per ha. (specify unit)	Cost in US\$
<u>On farm direct costs</u>		
<u>Preharvesting:</u>		
Labor . . . . .	8.75 man-days	311.8
Power . . . . .	16.2 tractor hours	262.4
Equipment . . . . .		52.0
Seed . . . . .	15 kgs	35.9
Fertilizer . . . . .	1,400 kgs	170.6
Herbicides . . . . .		71.9
Insecticides & fungicides . . . . .		265.6
Defoliant & other chemicals . . . . .		37.9
Irrigation . . . . .	5,200 m <sup>3</sup>	384.7
Custom or contract work:(spraying aerial 6.5 times \$126.0 ground crew \$7.6)		133.6
Other (specify) (Defoliation aerial 2.8 times \$86.1 Ground crew \$4.3)		90.4
(other contract work:0.3 m organic manure \$26.6 misc. \$13.0)		39.6
(transport \$25.0 supervising of spraying \$7.0 land rent \$12.7)		44.7
(A) Subtotal . . . . .		1,901.1
<u>Harvesting:</u>		
Labor . . . . .	1.6 man-days	57.2
Power . . . . .	3.1 tractor hours	50.4
Equipment: Mechanical pickers: 2 hours \$121.1 Other \$36.0		158.1
Custom or contract work . . . . . Cotton picking & Misc.		78.0
Other (specify) Transport \$16.1 Plastic covers \$16.2		
Field insurance \$5.8 Misc. \$1.8		39.9
(B) Subtotal . . . . .		383.6
(C) Interest on operating capital . . . . .		522.6
<u>Off farm direct costs</u>		
Transportation to gin . . . . .		32.6
Ginning (including bagging & ties)		355.2
Other (specify) _____		
(D) Subtotal . . . . .		387.8
I. Total direct costs (A+B+C+D) . . . . .		3,195.1
<u>Overhead costs</u>		
Management & administration . . . . .	General farm overhead	145.3
Land cost (typical rental value)		
Other (specify) * _____		
II. Total overhead costs . . . . .		145.3
TOTAL COSTS FOR SEED COTTON (I + II)		3,340.4
MINUS - value of cottonseed extracted in ginning . . . . .		571.0
NET COSTS FOR LINT . . . . .		2,769.4
Net costs for lint in US cents per pound		78.51
Rate of exchange used for converting local currency into US dollars . . . . .	11.87 Israel Shekel = US\$1.00	

Additional remarks:

\*Most of the land in Israel is rented to farmers from a state agency at a special rate for settlers. Therefore, it is difficult to quote a real rental value which represents the market value.

The yield in crop year 1981/82 was higher than usual, 10% above the average.

Yield used (kilos per hectare) for seed (unginned) cotton of which: Cotton lint Cotton seed

Country KENYA Crop year 1981/82\*

1,200

          

          

Item	Average estimated cost per hectare	
	Quantity used per ha. (specify unit)	Cost in US\$
<u>On farm direct costs</u>		
<u>Preharvesting:</u>		
Labor . . . . .	1,300 man-hours	197.20
Power . . . . .	-	-
Equipment . . . . .	1/3 of a knapsack sprayer	10.58
Seed . . . . .	22 kgs	-
Fertilizer . . . . .	-	-
Herbicides . . . . .	-	-
Insecticides & fungicides . . . . .	55 liters pyrethroids	84.13
Defoliant & other chemicals . . . . .	31 liters uticles	36.06
Irrigation . . . . .	-	-
Custom or contract work . . . . .	1 ploughing	43.27
Other (specify) _____		
(A) Subtotal . . . . .		371.24
<u>Harvesting:</u>		
Labor . . . . .	500 man-hours	72.12
Power . . . . .	-	-
Equipment . . . . .	-	-
Custom or contract work . . . . .	-	-
Other (specify) <u>Gunny bags</u>	30	11.54
(B) Subtotal . . . . .		83.66
(C) Interest on operating capital . . . . .		
<u>Off farm direct costs</u>		
Transportation to gin . . . . .		4.81
Ginning (including bagging & ties) Other (specify) _____		
(D) Subtotal . . . . .		4.81
I. Total direct costs (A+B+C+D) . . . . .		
<u>Overhead costs</u>		
Management & administration . . . . .		
Land cost (typical rental value) Other (specify) _____		
II. Total overhead costs . . . . .		-
TOTAL COSTS FOR SEED COTTON (I + II)		459.71
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 . . . . .	10.40kshs = US\$1.00	

\*Planted as a main crop. Family labor is valued at the wage rate for hired labor. However, the opportunity cost for family labor is below the market price during some parts of cotton farming activities, especially spraying and harvesting.



Yield used (kilos per hectare) Country KENYA Crop year 1981/82\*  
 for seed (unginned) cotton 300  
 of which: Cotton lint \_\_\_\_\_  
 Cotton seed \_\_\_\_\_

Item	Average estimated cost per hectare	
	Quantity used per ha. (specify unit)	Cost in US\$
<u>On farm direct costs</u>		
<u>Preharvesting:</u>		
Labor . . . . .	100 man-hours	14.42
Power . . . . .	-	-
Equipment . . . . .	-	-
Seed . . . . .	22 kgs	-
Fertilizer . . . . .	-	-
Herbicides . . . . .	-	-
Insecticides & fungicides . . . . .	-	-
Defoliant & other chemicals . . . . .	-	-
Irrigation . . . . .	-	-
Custom or contract work . . . . .	-	-
Other (specify) _____	-	-
(A) Subtotal . . . . .		14.42
<u>Harvesting:</u>		
Labor . . . . .	155 man-hours	21.60
Power . . . . .	-	-
Equipment . . . . .	-	-
Custom or contract work . . . . .	-	3.10
Other (specify) _____	-	-
(B) Subtotal . . . . .		24.70
(C) <u>Interest on operating capital</u> . . . . .		
<u>Off farm direct costs</u>		
Transportation to gin . . . . .		1.15
Ginning (including bagging & ties) Other (specify) _____		
(D) Subtotal . . . . .		1.15
I. <u>Total direct costs (A+B+C+D)</u> . . . . .		
<u>Overhead costs</u>		
Management & administration . . . . .		
Land cost (typical rental value) Other (specify) _____		
II. <u>Total overhead costs</u> . . . . .		-
TOTAL COSTS FOR SEED COTTON (I + II)		40.27
MINUS - value of cottonseed extracted in ginning . . . . .		
NET COSTS FOR LINT . . . . .		
<u>Net costs for lint in US cents per pound</u>		
Rate of exchange used for converting local currency into US dollars . . . . .		

\*Planted as a second crop after beans or others, or a mixed crop intersown into maize. No inputs are applied except labor for planting and harvesting, and possibly weeding.

	Country	MEXICO	Crop year	1982/83
Yield used (kilos per hectare)				
for seed (unginned) cotton		2,394	( )	2,052 ( )
of which: Cotton lint		924	(Mexicali, B.C.N.)	792 (Tapachula,)
Cotton seed		1,470	( )	1,260 (Chis.)

Item	Average estimated cost per hectare	
	Mexicali, B.C.N.	Tapachula, Chis.
<b>On farm direct costs</b>		
Cost in US\$		
<b>Preharvesting:</b>		
Labor . . . . .	74.00	30.87
Power . . . . .		53.00
Equipment . . . . .	56.32	26.71
Seed . . . . .	16.84	6.05
Fertilizer . . . . .	53.13	-
Herbicides . . . . .	12.13	31.24
Insecticides & fungicides . . . . .	97.58	3.95
Defoliant & other chemicals . . . . .	13.95	-
Irrigation . . . . .	10.00	184.21
Custom or contract work . . . . .	-	8.16
Other (specify) . . . . .	-	-
(A) Subtotal . . . . .	333.95	344.19
<b>Harvesting:</b>		
Labor . . . . .	249.37	53.42
Power . . . . .	5.00	1.97
Equipment . . . . .	3.29	3.29
Custom or contract work . . . . .		
Other (specify) . . . . .		
(B) Subtotal . . . . .	257.66	58.68
(C) Interest on operating capital . . . . .	97.37	63.55
<b>Off farm direct costs</b>		
Transportation to gin . . . . .	19.03	8.16
Ginning (including bagging & ties) . . . . .	163.15	72.00
Other (specify) . . . . .		17.89
(D) Subtotal . . . . .	182.18	98.05
I. Total direct costs (A+B+C+D) . . . . .	871.16	564.47
<b>Overhead costs</b>		
Management & administration . . . . .	6.13	-
Land cost (typical rental value) . . . . .	78.95	44.74
Other (specify) <u>taxes, entomological services, etc.</u> . . . . .	41.18	65.79
II. Total overhead costs . . . . .	126.26	110.53
TOTAL COSTS FOR SEED COTTON (I + II) . . . . .	997.42	675.00
MINUS - value of cottonseed extracted in ginning . . . . .	261.12	223.82
NET COSTS FOR LINT . . . . .	736.30	451.18
Net costs for lint in US cents per pound	36.15	25.84
Rate of exchange used for converting local currency into US dollars . . . . .	\$38.00 pesos = US\$1.00	
Additional remarks:		

	Country	MEXICO	Crop year	1982/83
Yield used (kilos per hectare)				
for seed (unginned) cotton		2,850	(	2,097
of which: Cotton lint		1,100	(Comarca	809
Cotton seed		1,750	(Lagunera	1,288
			)	(Chihuahua)

Item	Average estimated cost per hectare	
	Comarca Lagunera	Chihuahua
<u>On farm direct costs</u>	<u>Cost in US\$</u>	
<u>Preharvesting:</u>		
Labor . . . . .	206.32	221.05
Power . . . . .	49.92	57.37
Equipment . . . . .	55.97	26.84
Seed . . . . .	25.26	25.26
Fertilizer . . . . .	30.95	34.18
Herbicides . . . . .	-	-
Insecticides & fungicides . . . . .	235.66	40.26
Defoliant & other chemicals . . . . .	-	-
Irrigation . . . . .	118.42	54.47
Custom or contract work . . . . .	-	-
Other (specify) <u>Planting permit,</u> <u>agr. insurance, Plant health campaign</u>	40.21	-
(A) Subtotal . . . . .	762.71	459.43
<u>Harvesting:</u>		
Labor . . . . .	118.42	134.87
Power . . . . .	4.53	-
Equipment . . . . .	3.03	-
Custom or contract work . . . . .	-	-
Other (specify) . . . . .	-	-
(B) Subtotal . . . . .	125.98	134.87
(C) <u>Interest on operating capital</u> . . . . .	88.87	84.13
<u>Off farm direct costs</u>		
Transportation to gin . . . . .	19.47	26.58
Ginning (including bagging & ties)	86.84	34.74
Other (specify) <u>taxes, penalties,</u> <u>insurance</u>	16.00	48.97
(D) Subtotal . . . . .	122.31	110.27
I. <u>Total direct costs (A+B+C+D)</u> . . . . .	1,099.87	788.72
<u>Overhead costs</u>		
Management & administration . . . . .	68.03	88.34
Land cost (typical rental value)	-	121.00
Other (specify) <u>expenses for crop</u> <u>management</u>	2.42	.79
II. <u>Total overhead costs</u> . . . . .	70.45	210.13
TOTAL COSTS FOR SEED COTTON (I + II)	1,170.32	998.85
MINUS - value of cottonseed extracted in ginning . . . . .	310.84	228.79
NET COSTS FOR LINT . . . . .	859.48	770.06
Net costs for lint in US cents per pound	35.44	43.18
Rate of exchange used for converting local currency into US dollars . . . . .	\$38.00 pesos = US\$1.00	
<u>Additional remarks:</u>		

Yield used (kilos per hectare)  
 for seed (unginned) cotton 1,960.00  
 of which: Cotton lint 667.20  
 Cotton seed 1,004.70

Country NICARAGUACrop year 1981/82

Item	Average estimated cost per hectare	
	Quantity used per ha. (specify unit)	Cost in US\$
<u>On farm direct costs</u>		
<u>Preharvesting:</u>		
Labor . . . . .		133.78
Power 1/ . . . . .	}	158.26
Equipment . . . . .		-
Seed . . . . .		14.50
Fertilizer . . . . .		110.87
Herbicides . . . . .		63.74
Insecticides & fungicides . . . . .		354.50
Defoliant & other chemicals . . . . .		-
Irrigation . . . . .		-
Custom or contract work . . . . .		-
Other (specify) <u>Management, technical</u> <u>services &amp; application of insecticides &amp; herbicides</u>		216.49
(A) Subtotal . . . . .		1,052.14
<u>Harvesting:</u>		
Labor . . . . .		247.94
Power . . . . .		-
Equipment . . . . .		-
Custom or contract work . . . . .		-
Other (specify) _____		-
(B) Subtotal . . . . .		247.94
(C) <u>Interest on operating capital</u> . . . . .		67.12
<u>Off farm direct costs</u>		
Transportation to gin 2/ . . . . .		132.30
Ginning (including bagging & ties)		25.01
Other (specify) <u>Classification, load,</u> <u>taxes &amp; insurance</u>		157.31
(D) Subtotal . . . . .		1,524.51
I. <u>Total direct costs (A+B+C+D)</u> . . . . .		1,524.51
<u>Overhead costs</u>		
Management & administration . . . . .		29.42
Land cost (typical rental value)		42.54
Other (specify) <u>Financing costs for</u> <u>management &amp; circulation</u>		22.06
II. <u>Total overhead costs</u> . . . . .		94.02
TOTAL COSTS FOR SEED COTTON (I + II)		1,618.53
MINUS - value of cottonseed extracted in ginning . . . . .		110.75
NET COSTS FOR LINT . . . . .		1,507.78
Net costs for lint in US cents per pound		102.51
Rate of exchange used for converting local currency into US dollars . . . . .	C\$10.00 = US\$1.00	
<u>Additional remarks:</u>		

1/ Power & Equipment = Machinery & Equipment  
 2/ This cost is included with harvest (Labor)

	Country	<u>NIGER*</u>	Crop year	<u>1981/82</u>
Yield used (kilos per hectare)				
for seed (unginned) cotton		<u>2,600</u>		
of which: Cotton lint		<u>1,066</u>		
Cotton seed		<u>1,456</u>		

Item	Average estimated cost per hectare	
	Quantity used per ha. (specify unit)	Cost in US\$
<u>On farm direct costs</u>		
<u>Preharvesting:</u>		
Labor . . . . .	65 man-days	130.00
Power . . . . .	-	-
Equipment . . . . .	-	-
Seed . . . . .	40 kgs	0.40
Fertilizer . . . . .	250 kgs	75.00
Herbicides . . . . .	-	-
Insecticides & fungicides . . . . .	8 liters	80.00
Defoliant & other chemicals . . . . .	-	-
Irrigation . . . . .	3,500 m <sup>3</sup>	93.30
Custom or contract work . . . . .		
Other (specify) <u>Ploughing, ridging</u>		33.30
<u>Maintenance</u>		33.30
(A) Subtotal . . . . .		445.30
<u>Harvesting:</u>		
Labor <u>1/</u> . . . . .	104 man-days	138.00
Power . . . . .		
Equipment . . . . .		
Custom or contract work . . . . .		
Other (specify) <u>stalk destruction</u>	8 man-days	26.70
(B) Subtotal . . . . .		164.70
(C) <u>Interest on operating capital</u> . . . . .		
<u>Off farm direct costs</u>		
Transportation to gin . . . . .		66.50
Ginning (including bagging & ties)		753.00
Other (specify) _____		
(D) Subtotal . . . . .		819.50
I. <u>Total direct costs (A+B+C+D)</u> . . . . .		1,429.50
<u>Overhead costs</u>		
Management & administration . . . . .		97.50
Land cost (typical rental value)		
Other (specify) <u>Marketing</u>		13.00
II. <u>Total overhead costs</u> . . . . .		110.50
TOTAL COSTS FOR SEED COTTON (I + II)		1,540.00
MINUS - value of cottonseed extracted in ginning . . . . .		51.00
NET COSTS FOR LINT . . . . .		1,489.00
Net costs for lint in US cents per pound		63.36
Rate of exchange used for converting local currency into US dollars . . . . .	300 Fcfa = US\$1.00	

\*Extensive irrigation

1/ Laborers are women and children

Additional remark: Figures are given in real costs for farm inputs; they do not include subsidies granted to producers (100% for insecticides, 62% for fertilizers)

Country NIGER\* Crop year 1981/82  
 Yield used (kilos per hectare)  
 for seed (unginned) cotton 500  
 of which: Cotton lint 200  
 Cotton seed 275

Item	Average estimated cost per hectare	
	Quantity used per ha. (specify unit)	Cost in US\$
<u>On farm direct costs</u>		
<u>Preharvesting:</u>		
Labor . . . . .	29 man-days	58.00
Power . . . . .	-	-
Equipment . . . . .	-	-
Seed . . . . .	40 kgs	0.40
Fertilizer . . . . .	-	-
Herbicides . . . . .	-	-
Insecticides & fungicides . . . . .	-	-
Defoliant & other chemicals . . . . .	-	-
Irrigation . . . . .	-	-
Custom or contract work . . . . .	-	-
Other (specify) _____	-	-
(A) Subtotal . . . . .		58.40
<u>Harvesting:</u>		
Labor 1/ . . . . .	20 man-days	26.60
Power . . . . .	-	-
Equipment . . . . .	-	-
Custom or contract work . . . . .	-	-
Other (specify) <u>stalk destruction</u>	-	-
(B) Subtotal . . . . .		26.60
(C) <u>Interest on operating capital</u> . . . . .		
<u>Off farm direct costs</u>		
Transportation to gin . . . . .		12.80
Ginning (including bagging & ties)		144.00
Other (specify) _____		
(D) Subtotal . . . . .		156.80
I. <u>Total direct costs (A+B+C+D)</u> . . . . .		241.80
<u>Overhead costs</u>		
Management & administration . . . . .		18.70
Land cost (typical rental value)		
Other (specify) <u>Marketing</u>		2.50
II. <u>Total overhead costs</u> . . . . .		21.20
TOTAL COSTS FOR SEED COTTON (I + II)		263.00
MINUS - value of cottonseed extracted in ginning . . . . .		9.90
NET COSTS FOR LINT . . . . .		253.10
Net costs for lint in US cents per pound		57.40
Rate of exchange used for converting local currency into US dollars . . . . .	300 Fcfa = US\$1.00	

\*Non irrigated

Yield used (kilos per hectare)  
 for seed (unginned) cotton 1,153  
 of which: Cotton lint 384  
 Cotton seed 769

Country PAKISTANCrop year 1981/82

Item	Average estimated cost per hectare	
	Quantity used per ha. (specify unit)	Cost in US\$
<u>On farm direct costs</u>		
<u>Preharvesting:</u>		
Labor . . . . .	37 man-days	49.12
Power . . . . .	-	-
Equipment . . . . .	-	28.51
Seed . . . . .	20 kgs	3.50
Fertilizer . . . . .	185 kgs	31.60
Herbicides . . . . .	-	-
Insecticides & fungicides . . . . .	-	-
Defoliant & other chemicals . . . . .	3 sprays	60.68
Irrigation . . . . .	7 irrigations	4.37
Custom or contract work . . . . .	-	-
Other (specify) _____	-	-
(A) Subtotal . . . . .	-	177.78
<u>Harvesting:</u>		
Labor . . . . .	25 man-days	33.19
Power . . . . .	-	-
Equipment . . . . .	-	-
Custom or contract work . . . . .	-	-
Other (specify) _____	-	-
(B) Subtotal . . . . .	-	33.19
(C) <u>Interest on operating capital</u> . . . . .	-	15.31
<u>Off farm direct costs</u>		
Transportation to gin . . . . .	-	5.47
Ginning (including bagging & ties) Other (specify) _____	-	75.66
(D) Subtotal . . . . .	-	81.13
I. <u>Total direct costs (A+B+C+D)</u> . . . . .	-	307.41
<u>Overhead costs</u>		
Management & administration . . . . .	-	5.25
Land cost (typical rental value) Other (specify) <u>land revenue and artisan</u>	-	54.67 9.83
II. <u>Total overhead costs</u> . . . . .	-	377.16
TOTAL COSTS FOR SEED COTTON (I + II)		
MINUS - value of cottonseed extracted in ginning . . . . .	-	145.20
NET COSTS FOR LINT . . . . .	-	231.96
Net costs for lint in US cents per pound		27.40
Rate of exchange used for converting local currency into US dollars . . . . .		Rs. 11.30 = US\$1.00

Additional remarks:

The cost and yield relate to the most representative variety in the Punjab. Costs and yields vary in different regions depending on differences in practice. Similarly, yields also vary from region to region and variety to variety.

Reduction in net costs for lint as against that of 1980/81 (29.10 cents per lb.) is due to difference of dollar-rupee exchange rate.

Country PHILIPPINES Crop year 1981/82  
 Yield used (kilos per hectare) for seed (unginned) cotton 1,200  
 of which: Cotton lint \_\_\_\_\_  
 Cotton seed \_\_\_\_\_

Item	Average estimated cost per hectare	
	Quantity used per ha. (specify unit)	Cost in US\$
<u>On farm direct costs</u>		
<u>Preharvesting:</u>		
Labor . . . . .	126 man-days	
Power . . . . .	8 man-animal-days	200.00
Equipment . . . . .		
Seed . . . . .	20 kgs	7.50
Fertilizer . . . . .	4 bags 14-14-14 + 2 bags urea	87.50
Herbicides . . . . .		
Insecticides & fungicides . . . . .	10 quarts	150.00
Defoliant & other chemicals . . . . .		
Irrigation . . . . .	Rental/gasoline (3 times)	81.38
Custom or contract work . . . . .		
Other (specify) _____		
(A) Subtotal . . . . .		526.38
<u>Harvesting:</u>		
Labor . . . . .	50 man-days	62.50
Power . . . . .		
Equipment . . . . .		
Custom or contract work . . . . .		
Other (specify) Transportation cost from farm to Philcotton collection center	P0.10/kg, within 30 kms radius	15.00
(B) Subtotal . . . . .		77.50
(C) Interest on operating capital . . . . .	P3,000 at 12% annual rate for 210 days	25.88
<u>Off farm direct costs 1/</u>		
Transportation to gin . . . . .		
Ginning (including bagging & ties)		
Other (specify) _____		
(D) Subtotal . . . . .		
I. Total direct costs (A+B+C+D) . . . . .		629.76
<u>Overhead costs</u>		
Management & administration . . . . .		
Land cost (typical rental value) 2/		
Other (specify) _____		
II. Total overhead costs . . . . .		
TOTAL COSTS FOR SEED COTTON (I + II)		629.76
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 . . . . .	P8.00 = US\$1.00	

Additional remarks:

1/ Off farm direct costs are borne by the Philippine Cotton Corporation, the sole authority which buys and processes seedcotton in the Philippines.

2/ Land operated on is under a "share-tenant" arrangement (75% of produce to farmers; 25% to landlord).



Country SPAIN Crop year 1980/81  
 Yield used (kilos per hectare)  
 for seed (unginned) cotton 3,150  
 of which: Cotton lint 1,050  
 Cotton seed 2,000

Item	Average estimated cost per hectare	
	Quantity used per ha. (specify unit)	Cost in US\$
<u>On farm direct costs</u>		
<u>Preharvesting:</u>		
Labor . . . . .	100 hours	219
Power . . . . .	various	114
Equipment . . . . .		
Seed . . . . .	60 kgs	50
Fertilizer 1/ 900 kgs (600 kgs of 15-15-15 & 300 kgs of urea 46% . . . . .		284
Herbicides 2/ . . . . .	1.8 liters	26
Insecticides & fungicides 3/ . . . . .	6 treatments	184
Defoliant & other chemicals . . . . .		
Irrigation 4/ . . . . .	6 waterings	41
Custom or contract work . . . . .		
Other (specify) <u>Watering, weeding &amp; miscellaneous</u> . . . . .	135 hrs (30 hrs for irrig. & remain. for weeding & clearing)	339
(A) Subtotal . . . . .		1,257
<u>Harvesting:</u>		
Labor . . . . .		
Power . . . . .		
Equipment . . . . .		
Custom or contract work . . . . .	3,150 kgs	870
Other (specify) <u>Cost of weighing &amp; sacks for packing</u> . . . . .		33
(B) Subtotal . . . . .		903
(C) <u>Interest on operating capital</u> . . . . .		69
<u>Off farm direct costs</u>		
Transportation to gin . . . . .		33
Ginning (including bagging & ties) . . . . .		278
Other (specify) _____ . . . . .		
(D) Subtotal . . . . .		311
I. <u>Total direct costs (A+B+C+D)</u> . . . . .		2,540
<u>Overhead costs</u>		
Management & administration . . . . .		125
Land cost (typical rental value) . . . . .		217
Other (specify) _____ . . . . .		
II. <u>Total overhead costs</u> . . . . .		342
TOTAL COSTS FOR SEED COTTON (I + II)		2,882
MINUS - value of cottonseed extracted in ginning . . . . .		400
NET COSTS FOR LINT . . . . .		2,482
Net costs for lint in US cents per pound		107.22
Rate of exchange used for converting local currency into US dollars . . . . .		95 pesetas = US\$1.00
<u>Additional remarks:</u>		

The above information refers to medium-size farms.

1/Includes the cost of 600 kgs of 15-15-15, 300 kgs of urea 46%, and around \$18 for application. 2/Includes \$11 for application. 3/Includes the cost of material and application. 4/Cost of water only.

Yield used (kilos per hectare)  
 for seed (unginned) cotton \_\_\_\_\_  
 of which: Cotton lint \_\_\_\_\_  
 Cotton seed \_\_\_\_\_

Country SUDAN Crop year 1979/80

Item	Average estimated cost per hectare	
	Quantity used per ha. (specify unit)	Cost in US\$
<u>On farm direct costs</u>		
<u>Preharvesting:</u>		
Labor . . . . .		25.90
Power . . . . .		
Equipment . . . . .		
Seed . . . . .		8.71
Fertilizer . . . . .		68.41
Herbicides . . . . .		
Insecticides & fungicides . . . . .		0.04
Defoliant & other chemicals . . . . .		
Irrigation . . . . .		
Custom or contract work . . . . .		
Other (specify) <u>Spraying</u> . . . . .		131.95
Experiment res. Working acct. <u>Malaria campaign</u> . . . . .		33.66
(A) Subtotal . . . . .		268.67
<u>Harvesting:</u>		
Labor . . . . .		59.03
Power . . . . .		
Equipment . . . . .		
Custom or contract work . . . . .		3.80
Other (specify) <u>Sacks, handling</u> <u>at cotton stations</u> . . . . .		20.57
(B) Subtotal . . . . .		83.40
(C) <u>Interest on operating capital</u> . . . . .		53.60
<u>Off farm direct costs</u>		
Transportation to gin . . . . .		9.96
Ginning (including bagging & ties) . . . . .		72.86
Other (specify) <u>Insurance</u> . . . . .		1.87
(D) Subtotal . . . . .		84.69
I. <u>Total direct costs (A+B+C+D)</u> . . . . .		490.36
<u>Overhead costs</u>		
Management & administration . . . . .		0.12
Land cost (typical rental value) . . . . .		-
Other (specify) <u>miscel.</u> . . . . .		0.03
II. <u>Total overhead costs</u> . . . . .		0.15
TOTAL COSTS FOR SEED COTTON (I + II)		490.51
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 . . . . .	1SP = US\$2.00	
Additional remarks:		

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

Country SYRIA Crop year 1981/82

Item	Average estimated cost per hectare	
	Quantity used per ha. (specify unit)	Cost in US\$
<u>On farm direct costs</u>		
<u>Preharvesting:</u>		
Labor . . . . .		253.85
Power . . . . .		
Equipment . . . . .		405.13
Seed . . . . .	100 kgs per hectare	15.38
Fertilizer . . . . . 880 kgs Calnitro & Mono Super Phosphate		128.21
Herbicides . . . . .		
Insecticides & fungicides . . . . .		
Defoliant & other chemicals . . . . .		23.08
Irrigation . . . . .		141.03
Custom or contract work . . . . .		
Other (specify) <u>sacks &amp; cords</u>	Abt. 20 sacks per ha.	33.33
<u>miscellaneous</u>		20.51
(A) Subtotal . . . . .		1,020.52
<u>Harvesting:</u>		
Labor . . . . .		230.77
Power . . . . .		
Equipment . . . . .		
Custom or contract work . . . . .		
Other (specify) _____		
(B) Subtotal . . . . .		230.77
(C) <u>Interest on operating capital</u> . . . . .		76.92
<u>Off farm direct costs</u>		
Transportation to gin . . . . .		62.82
Ginning (including bagging & ties)		128.21
Other (specify) _____		
(D) Subtotal . . . . .		191.03
I. <u>Total direct costs (A+B+C+D)</u> . . . . .		1,519.24
<u>Overhead costs</u>		
Management & administration . . . . .		
Land cost (typical rental value)		282.05
Other (specify) _____		
II. <u>Total overhead costs</u> . . . . .		282.05
TOTAL COSTS FOR SEED COTTON (I + II)		1,801.29
MINUS - value of cottonseed extracted in ginning . . . . .		206.67
NET COSTS FOR LINT . . . . .		1,594.62
Net costs for lint in US cents per pound		78.21
Rate of exchange used for converting local currency into US dollars . . . . .	3.90 Syrian pounds = US\$1.00	
<u>Additional remarks:</u>		

The above data are for irrigated cotton.

Country TANZANIA Crop year 1981/82  
 Yield used (kilos per hectare)  
 for seed (unginned) cotton 380  
 of which: Cotton lint 107  
 Cotton seed 247

Item	Average estimated cost per hectare	
	Quantity used per ha. (specify unit)	Cost in US\$
<u>On farm direct costs</u>		
<u>Preharvesting:</u>		
Labor . . . . .	111.25 man-days	215.24
Power . . . . .	-	-
Equipment . . . . .	-	9.78
Seed . . . . .	37.5 kgs	12.23
Fertilizer . . . . .		18.48
Herbicides . . . . .		-
Insecticides & fungicides . . . . .	15 liters (insecticides)	48.91
Defoliant & other chemicals . . . . .		
Irrigation . . . . .		
Custom or contract work . . . . .		
Other (specify) <u>Batteries</u>	8 pieces	2.61
(A) Subtotal . . . . .		307.25
<u>Harvesting:</u>		
Labor . . . . .	37.5 man-days	72.55
Power . . . . .		
Equipment . . . . .		9.78
Custom or contract work . . . . .		
Other (specify) _____		
(B) Subtotal . . . . .		82.33
(C) <u>Interest on operating capital</u> . . . . .	8.5 %	33.12
<u>Off farm direct costs</u>		
Transportation to gin . . . . .		8.67
Ginning (including bagging & ties)		26.83
Other (specify) <u>Storage at village</u>		
<u>and at ginnery</u>		7.17
(D) Subtotal . . . . .		42.67
I. <u>Total direct costs (A+B+C+D)</u> . . . . .		465.37
<u>Overhead costs</u>		
Management & administration . . . . .		
Land cost (typical rental value)		
Other (specify) _____		
II. <u>Total overhead costs</u> . . . . .		39.13
TOTAL COSTS FOR SEED COTTON (I + II)		504.50
MINUS - value of cottonseed extracted in ginning . . . . .		67.12
NET COSTS FOR LINT . . . . .		437.38
Net costs for lint in US cents per pound		185.42
Rate of exchange used for converting local currency into US dollars . . . . .	Tshs 9.2 = US\$1.00	
<u>Additional remarks:</u>		

Yield used (kilos per hectare)  
 for seed (unginned) cotton 1,375  
 of which: Cotton lint 458  
 Cotton seed 917

Country THAILAND Crop year 1981/82

Item	Average estimated cost per hectare 1/	
	Quantity used per ha. (specify unit) 2/	Cost in US\$
<u>On farm direct costs</u>		
<u>Preharvesting:</u>		
Labor . . . . .		143.05
Power 3/ . . . . .		56.14
Equipment 4/ . . . . .		4.23
Seed . . . . .		6.89
Fertilizer . . . . .		5.46
Herbicides . . . . .	}	
Insecticides & fungicides . . . . .		
Defoliant & other chemicals . . . . .		196.89
Irrigation . . . . .		-
Custom or contract work . . . . .		-
Other (specify) _____		-
(A) Subtotal . . . . .		412.66
<u>Harvesting:</u>		
Labor . . . . .		127.89
Power . . . . .		4.97
Equipment . . . . .		-
Custom or contract work . . . . .		-
Other (specify) _____		-
(B) Subtotal . . . . .		132.86
(C) Interest on operating capital . . . . .		32.68
<u>Off farm direct costs</u>		
Transportation to gin . . . . .		7.43
Ginning (including bagging & ties) . . . . .		65.15
Other (specify) _____		2.00
Expense for buying seed cotton		
Labor		0.40
(D) Subtotal . . . . .		74.98
I. Total direct costs (A+B+C+D) . . . . .		653.18
<u>Overhead costs 5/</u>		
Management & administration . . . . .		-
Land cost (typical rental value)		31.52
Other (specify) _____		-
II. Total overhead costs . . . . .		31.52
TOTAL COSTS FOR SEED COTTON (I + II)		684.70
MINUS - value of cottonseed extracted in ginning . . . . .		92.10
NET COSTS FOR LINT . . . . .		592.60
Net costs for lint in US cents per pound		58.69
Rate of exchange used for converting local currency into US dollars . . . . .	22.90 Bahts = US\$1.00	
<u>Additional remarks:</u>		
1/ National average		
2/ Not available		
3/ Including expense for using animals		
4/ Including depreciation and repairing		
5/ Cost of the farm operation only. Net cost for lint is the cost at farm gate.		

Yield used (kilos per hectare) Country TURKEY (Aegean) Crop year 1981/82  
 for seed (unginned) cotton 2,500  
 of which: Cotton lint 932  
 Cotton seed 1,500

Item	Average estimated cost per hectare	
	Quantity used per ha. (specify unit)	Cost in US\$
<u>On farm direct costs</u>		
<u>Preharvesting:</u>		
Labor . . . . .		142.83
Power . . . . .	}	
Equipment . . . . .		212.27
Seed . . . . .		17.48
Fertilizer . . . . .		37.40
Herbicides . . . . .		8.74
Insecticides & fungicides . . . . .		23.53
Defoliant & other chemicals . . . . .		-
Irrigation . . . . .		15.15
Custom or contract work . . . . .		6.06
Other (specify) _____		19.81
(A) Subtotal . . . . .		483.27
<u>Harvesting:</u>		
Labor . . . . .	}	137.94
Power . . . . .		
Equipment . . . . .		9.09
Custom or contract work . . . . .		17.48
Other (specify) _____		0.23
(B) Subtotal . . . . .		164.74
(C) <u>Interest on operating capital</u> . . . . .		104.85
<u>Off farm direct costs</u>		
Transportation to gin . . . . .		21.20
Ginning (including bagging & ties)		86.91
Other (specify) _____		3.15
(D) Subtotal . . . . .		111.26
I. <u>Total direct costs (A+B+C+D)</u> . . . . .		864.12
<u>Overhead costs</u>		
Management & administration . . . . .		11.65
Land cost (typical rental value)		275.86
Other (specify) _____		13.40
II. <u>Total overhead costs</u> . . . . .		300.91
TOTAL COSTS FOR SEED COTTON (I + II)		1,165.03
MINUS - value of cottonseed extracted in ginning . . . . .		362.07
NET COSTS FOR LINT . . . . .		802.96
Net costs for lint in US cents per pound		39.08
Rate of exchange used for converting local currency into US dollars . . . . .	145.00 TL = US\$1.00	
Additional remarks:		

	Country	TURKEY (Antalya)	Crop year	1981/82
Yield used (kilos per hectare)				
for seed (unginned) cotton		2,770		
of which: Cotton lint		1,039		
Cotton seed		1,662		

Item	Average estimated cost per hectare	
	Quantity used per ha. (specify unit)	Cost in US\$
<u>On farm direct costs</u>		
<u>Preharvesting:</u>		
Labor . . . . .	282.7 hours	91.43
Power . . . . .	23.4 hours	11.39
Equipment . . . . .	8.2 hours	5.37
Seed . . . . .	44.8 kgs	9.73
Fertilizer . . . . .	842.6 kgs	63.81
Herbicides . . . . .	2,310 kgs	7.01
Insecticides & fungicides . . . . .	10,120 kgs	32.46
Defoliant & other chemicals . . . . .	3,040 kgs	38.80
Irrigation . . . . .		10.35
Custom or contract work . . . . .		9.70
Other (specify) _____		
(A) Subtotal . . . . .		280.05
<u>Harvesting:</u>		
Labor . . . . .	292.4 hours	94.57
Power . . . . .	5.3 hours	2.57
Equipment . . . . .	3.3 hours	1.60
Custom or contract work . . . . .	23.7 hours	7.66
Other (specify) _____		
(B) Subtotal . . . . .		106.40
(C) Interest on operating capital . . . . .		77.03
<u>Off farm direct costs</u>		
Transportation to gin . . . . .		4.57
Ginning (including bagging & ties)		86.11
Other (specify) _____		
(D) Subtotal . . . . .		90.68
I. Total direct costs (A+B+C+D) . . . . .		554.16
<u>Overhead costs</u>		
Management & administration . . . . .		55.28
Land cost (typical rental value)		294.98
Other (specify) Depreciation _____		112.44
II. Total overhead costs . . . . .		462.70
TOTAL COSTS FOR SEED COTTON (I + II)		1,016.86
MINUS - value of cottonseed extracted in ginning . . . . .		149.73
NET COSTS FOR LINT . . . . .		867.13
Net costs for lint in US cents per pound		37.86
Rate of exchange used for converting local currency into US dollars . . . . .	145 TL = US\$1.00	
Additional remarks:		

	Country	UGANDA	Crop year	1981/82
Yield used (kilos per hectare)				
for seed (unginned) cotton	400	1/		
of which: Cotton lint	130			
Cotton seed	270			

Item	Average estimated cost per hectare 2/	
	Quantity used per ha. (specify unit)	Cost in US\$
<u>On farm direct costs</u>		
<u>Preharvesting:</u>		
Labor 3/ . . . . .	109 man-days 4/	36.35
Power . . . . .	) Insecticide sprayer Free to farmers	1.50
Equipment . . . . .		-
Seed . . . . .	-	-
Fertilizer . . . . .	-	2.95
Herbicides . . . . .	10 liters of DDT	-
Insecticides & fungicides . . . . .	-	-
Defoliant & other chemicals . . . . .	-	-
Irrigation . . . . .	-	-
Custom or contract work . . . . .	-	-
Other (specify) _____	-	-
(A) Subtotal . . . . .		40.80
<u>Harvesting:</u>		
Labor . . . . .	22 man-days	9.45
Power . . . . .	-	-
Equipment . . . . .	-	-
Custom or contract work . . . . .	-	-
Other (specify) 5/ _____	-	4.70
(B) Subtotal . . . . .		14.15
(C) <u>Interest on operating capital</u> . . . . .		
<u>Off farm direct costs</u>		
Transportation to gin . . . . .		
Ginning (including bagging & ties)		
Other (specify) _____		32.19
(D) Subtotal . . . . .		
I. <u>Total direct costs (A+B+C+D)</u> . . . . .		87.14
<u>Overhead costs</u>		
Management & administration . . . . .		-
Land cost (typical rental value)		-
Other (specify) _____		-
II. <u>Total overhead costs</u> . . . . .		-
TOTAL COSTS FOR SEED COTTON (I + II)		87.14
MINUS - value of cottonseed extracted in ginning . . . . .		14.13
NET COSTS FOR LINT . . . . .		73.01
<u>Net costs for lint in US cents per pound</u>		56.16
Rate of exchange used for converting local currency into US dollars . . . . .	86 UShs = US\$1.00	

Additional remarks: 1/400 kgs of clean cotton i.e. AR only. 2/Based on recent survey in 5 principal cotton growing zones which together produce over 75% of country's crop. 3/Labor contributes over 95% to cost of production of cotton in Uganda. Costs of tools and equipment are minimal since these are shared among all enterprises on the farm. Similarly cost of chemicals is small since these are generally got being applied. 4/Here a man-day is defined as 3 full working hours per day per individual. 5/Labor involved in movement of seed cotton to primary buying centers. Official labor wage is \$2.30 per man-day.



Country UNITED STATES Crop year 1981Cotton Production Costs per Planted Acre and Per Pound of  
Lint by Cost Item, Specified Regions, 1981

Cost Item	342 Southeast	330 Delta	222 Southern Plains	323 Southwest	279 United States
<u>COSTS PER ACRE</u>					
	<u>Dollars</u>				
Variable . . . . .	329.06	282.14	172.81	586.59	266.91
Seed . . . . .	6.17	6.57	7.45	7.00	7.12
Fertilizer . . . . .	41.34	31.11	11.47	37.63	21.28
Lime . . . . .	5.24	1.35	---	---	0.58
Chemicals 1/ . . . . .	101.47	70.64	12.66	96.12	42.59
Custom operations 2/ . . . . .	15.37	11.49	5.41	31.79	11.21
All labor . . . . .	30.83	36.08	37.30	89.92	44.52
Fuel & Lubrication . . . . .	30.23	30.07	31.49	101.86	41.61
Repairs . . . . .	47.59	45.24	20.21	61.70	33.36
Ginnings . . . . .	39.01	39.74	39.91	110.17	50.31
Purchased irrigation water . . . . .	---	---	0.11	29.05	4.40
Interest . . . . .	11.81	9.85	6.80	21.45	9.93
Machinery ownership . . . . .	143.24	127.75	74.10	178.30	105.13
Replacement . . . . .	71.16	63.20	38.72	94.02	54.09
Interest . . . . .	60.94	55.07	30.57	72.37	43.81
Taxes & Insurance . . . . .	11.14	9.48	4.81	11.91	7.23
General farm overhead . . . . .	6.84	9.12	9.85	16.63	10.54
Management 3/ . . . . .	47.91	41.90	25.68	78.15	38.26
<u>Total, excluding land . . . . .</u>	<u>527.05</u>	<u>460.91</u>	<u>282.44</u>	<u>859.67</u>	<u>420.84</u>
Land Allocation:					
Composite with--					
Current value 4/ . . . . .	72.46	89.52	47.26	226.62	84.66
Average acquisition value 5/	37.18	48.23	22.52	105.77	41.38
<u>COSTS PER POUND OF LINT 6/</u>					
Variable . . . . .	.618	.544	.468	.510	.506
Machinery ownership . . . . .	.269	.246	.201	.155	.199
Farm overhead . . . . .	.013	.018	.027	.014	.020
Management . . . . .	.090	.081	.069	.068	.073
<u>Total, excluding land . . . . .</u>	<u>.990</u>	<u>.889</u>	<u>.765</u>	<u>.747</u>	<u>.798</u>
Value of cottonseed . . . . .	.065	.064	.070	.075	.070
<u>TOTAL PER POUND COST OF PRODUCTION 7/</u>					
With land at current value 8/	\$1.083	1.021	.872	.878	.919
With land at acquisition value 9/ . . . . .	99.61	91.65	75.57	76.46	80.66
Yield per acre (pounds) . . . . .	532	519	369	1150	527
Percent of U.S. production . . . . .	5.4	21.6	40.4	32.5	99.9

1/ Includes herbicides, insecticides, fungicides and harvest-aid chemicals not otherwise included under custom operations.

2/ Includes custom application of crop chemicals, the cost of chemicals in some cases, and custom harvesting and hauling.

3/ Based on 10 percent of above costs.

4/ Based on prevailing tenure arrangements in 1981, reflecting actual combinations of cash rent, net share rent, and owner-operator land allocations, land values, land tax rates, and cash rents.

5/ Same as footnote 4, except average value of cropland during the last 35 years is used for owner-operator land instead of current land value.

6/ Costs per pound of lint before deducting value of seed produced.

7/ Total cost per pound of lint less value of seed.

8/ Total cost with land allocation based on a composite of prevailing tenure arrangements and current land values (see footnote 4 above).

9/ Total cost with land allocation based on a composite of prevailing tenure arrangements and acquisition values (see footnote 5 above).

2725.19  
1482.86

Country UNITED STATES Crop year 1981COTTON: Specified Inputs Per Planted Acre,  
U.S. and Specified Regions, 1981

	Southeast	Delta	Southern Plains	Southwest	United States
	<u>Pounds of nutrients</u>				
<u>Fertilizer</u>					
Nitrogen (N)	71.5	74.0	25.6	118.7	52.6
Phosphate (P <sub>2</sub> O <sub>5</sub> )	49.0	27.9	20.7	25.7	24.5
Potash (K <sub>2</sub> O)	70.4	38.8	4.8	3.1	15.5
	<u>Hours per acre</u>				
<u>Labor</u>					
Preharvest					
Machinery operation	4.33	3.82	3.50	5.28	3.88
Other 1/	1.34	3.23	4.66	10.06	4.97
Harvest	2.53	2.18	0.96	3.22	1.62
Total labor	8.20	9.23	9.12	18.56	10.50
<u>Harvest Machinery 2/</u>	2.11	1.81	0.78	2.67	1.36
<u>Tractor Hours</u>	2.91	2.86	2.83	4.61	3.11

1/ Includes labor used for irrigation.

2/ Includes harvesting and hauling, with exception of custom harvest machinery time.

Yield used (kilos per hectare)  
 for seed (unginned) cotton 834  
 of which: Cotton lint 311  
 Cotton seed 488

Country UPPER VOLTACrop year 1980/81

Item	Average estimated cost per hectare	
	Quantity used per ha. (specify unit)	Cost in US\$
<u>On farm direct costs</u>		
<u>Preharvesting:</u>		
Labor . . . . .	90 man-days	144.00
Power . . . . .	-	-
Equipment . . . . .	-	-
Seed . . . . .	-	-
Fertilizer . . . . .	98 kgs	17.64
Herbicides . . . . .	-	-
Insecticides & fungicides . . . . .	7.3 liters	12.84
Defoliant & other chemicals . . . . .	-	-
Irrigation . . . . .	-	-
Custom or contract work . . . . .	-	-
Other (specify) _____	-	174.48
(A) Subtotal . . . . .		
<u>Harvesting:</u>		
Labor . . . . .	40 man-days	64.00
Power . . . . .	-	-
Equipment . . . . .	-	-
Custom or contract work . . . . .	-	-
Other (specify) _____	-	-
(B) Subtotal . . . . .		64.00
(C) <u>Interest on operating capital</u> . . . . .		-
<u>Off farm direct costs</u>		
Transportation to gin . . . . .		28.90
Ginning (including bagging & ties) Other (specify) _____		25.48
(D) Subtotal . . . . .		54.38
I. <u>Total direct costs (A+B+C+D)</u> . . . . .		292.86
<u>Overhead costs</u>		
Management & administration . . . . .		20.16
Land cost (typical rental value)		-
Other (specify) _____		-
II. <u>Total overhead costs</u> . . . . .		20.16
TOTAL COSTS FOR SEED COTTON (I + II)		313.02
MINUS - value of cottonseed extracted in ginning . . . . .		21.60
NET COSTS FOR LINT . . . . .		291.42
Net costs for lint in US cents per pound		42.50
Rate of exchange used for converting local currency into US dollars . . . . .	F CFA 250 = US\$1.00	
Additional remarks:		

	Country	ZAIRE	Crop year	1981/82
Yield used (kilos per hectare)				
for seed (unginned) cotton		400		
of which: Cotton lint		144		
Cotton seed		250		

Item	Average estimated cost per hectare	
	Quantity used per ha. (specify unit)	Cost in US\$
<b>On farm direct costs</b>		
<b>Preharvesting:</b>		
Labor . . . . .	145 man-days	127.22
Power . . . . .	}	5.26
Equipment . . . . .		
Seed . . . . .		-
Fertilizer . . . . .	Nil	-
Herbicides . . . . .	Nil	
Insecticides & fungicides . . . . .	Free	
Defoliants & other chemicals . . . . .	Nil	
Irrigation . . . . .	Nil	
Custom or contract work . . . . .	Nil	
Other (specify) _____		
(A) Subtotal . . . . .		132.48
<b>Harvesting:</b>		
Labor . . . . .	16 man-days	14.04
Power . . . . .	Nil	
Equipment . . . . .	Nil	
Custom or contract work . . . . .	Nil	
Other (specify) <u>Stalk destruction</u>	10 man-days	8.77
(B) Subtotal . . . . .		22.81
<b>TOTAL COST FOR THE FARMER</b>		<b>155.29</b>

There are no charges for farmers other than costs of production. However, there are charges for cotton companies that buy seed cotton at the price fixed by the Executive Council (Government).

The companies organize extension services in order to help farmers. They receive in return subsidies (on insecticides, road rehabilitation, financing and extension services).

The costs are as follows for one metric ton of lint:

1. Buying of seed cotton . . . . .	\$	947.00
2. Cost of production . . . . .		525.00
3. Cost of commercialization . . . . .		753.00
4. Cost of ginning . . . . .		807.00
5. Other costs . . . . .		95.00
		<u>3,127.00</u>
Minus value of seeds . . . . .		<u>124.67</u>
		3,002.33

Cost for cotton lint, ex ginnery, is US\$3.00 per kilo.

Transportation, insurance and other costs : US\$0.20 per kilo

Cost of cotton lint is US\$3.20 per kilo or 145.15 cents per pound.

Additional remarks:

1/ The cost is the regular salary of non-specialized worker in area of cotton production; it is a theoretical cost because the farmer works for himself.

2/ One hoe and one machete are used for 2 years.

Country ZIMBABWE Crop year 1980/81

Yield used (kilos per hectare)  
 For seed (unginned cotton)  
 of which : Cotton lint  
 Cotton seed

	<u>DRY LAND</u>	<u>IRRIGATED</u>
	1,500	2,300
	525	805
	975	1,495

Item	Estimated cost per hectare		
	Dryland cotton	Irrigated cotton	
<u>On farm direct costs</u>			
<u>Preharvesting:</u> Labor : General	47.91/Labor-days general workers at \$2.19/Labor-days=\$25104.92 11.09/Labor-days tractor drivers at 2.81/Labor-days = \$31.16	Same as for the Dryland crop	184.76
Power and Equipment (includes tractor operating costs repairs & maintenance, insurance & licences)	99 liters diesel at 93.94c/lit. Fuel & lubricants at 35.41c/lit. Repairs & maintenance) insurance & licences )58.43c/lit.	Same as for the Dryland crop	126.27
Seed (Albar variety)	25 kg/hectare at \$7.50/50kg bag	25 kg/hectare at \$7.50/50kg bag	5.09
Fertilizer	350 kg compound L at \$188.80/ton = \$66.08 50 kg ammonium nitrate at \$187.20/ton = \$9.36 290 kg lime at \$18.80 ton = \$4.70 Transport of 650 kg fertilizer at \$5.20/ton = \$3.38	400 kg compound L at \$3180.80 ton = \$72.32 100 kg ammonium nitrate at \$187.20/ton = \$18.72 250 kg lime at \$18.80/ton = \$4.70 Transport of 750 kg fertilizer = at \$5.73/ton = \$4.30	135.82

Item	Estimated cost per hectare			
	Dryland cotton	Irrigated cotton		
	Quantity used per hectare (specify unit)	Quantity used per hectare (specify unit)	Cost in US\$	Cost in US\$
Herbicides	1.6 liters Trif at \$123.00/20 liters = \$9.84 2.80 kg Cotoran at \$175.00/20 kg = \$20.50 1.25 kg Diuron at \$158.38/25 kg = \$7.92 0.54 liter Gramoxone at \$22.75/5 liter = \$2.46	1.60 liters Trif at \$123.00/20 liters = \$9.84 2.8 kg Cotoran at \$175.00/20 kg = \$24.50 1.5 kg Diuron at \$158.38/25 kg = \$9.50 0.54 liter Gramox one at \$22.75/5 liter = \$2.46	60.62	62.86
Insecticides & fungicides	Carbarbyl: 2 x 0.588 kg and 6 x 1.176 kg at \$589.67/20 kg = \$36.91 Thiodan: 2 x 0.428 liter and 2 x 0.856 liter at \$2415.00/100 liter = \$10.66 DDT: 3 x 1.33 kg at \$51.00/25 kg = \$8.16 Tedion: 2 x 1.2 liter at \$3.69/liter = \$8.43 Dimethoates: 1 x 0.125 liter and 1 x 0.250 liter at \$112.39/liter = \$2.01 Molasses: 4 liter/spray x 9 sprays at \$25.00/200 liter = \$4.50	Same as for the dryland crop	95.95	95.95
Defoliant & other chemicals	N11	N11	N11	N11
Irrigation	N11	Overhead sprinkler assumed electricity is budgeted at \$4.027 per hectare per application. 700 mm (gross) of water assumed in 10 irrigations.	N11	54.67
Custom or contract work	Contract aerial spraying 9 insecticide sprays for 100 ha assumed	Contract aerial spraying 2 insecticide sprays for 100 ha assumed	62.20	62.20
Other (specify)	N11	N11	N11	N11
(A) Subtotal . . .			648.32	727.62

Item	Estimated cost per hectare			
	Dryland cotton	Irrigated cotton		
	Quantity used per hectare (specify unit)	Quantity used per hectare (specify unit)	Cost in US\$	Cost in US\$
Harvesting:				
Labor	Cotton picking labor receive 5c/kg of cotton picked	Cotton picking labor receive 5c/kg of cotton picked	101.83	156.14
Power and equipment	Included under tractor operating	Included under tractor operating	-	-
Custom or contract work	Included under cotton picking labor	Included under cotton picking labor	-	-
Other (specify)	N11	N11	N11	N11
(B) Subtotal . . .			101.83	156.14
(C) Interest on operating Capital	13% per annum for cropping period of 9 months	13% per annum for cropping period of 9 months	56.02	65.58
Off farm direct costs				
Transport off farm	A 30 km journey is assumed at \$5.06/ton	A 30 km journey is assumed at \$5.06/ton	10.30	15.80
Bagging and ties	8 packs/hectare required at Z\$0.25/pack (hiring)	13 packs/hectare required at Z\$0.25/pack (hiring)	2.72	4.41
Other: Crop insurance	0.32% of crop value	0.32% of crop value	2.48	3.82
Levies	1.40% of Gross Income/ha of Z\$572.40	1.40% of Gross Income/ha of of Z\$877.68	10.88	16.69
miscellaneous costs	Allowance to cover unexpected costs	Allowance to cover unexpected costs	3.65	3.65
(D) Subtotal . . .			30.03	44.37
1- TOTAL DIRECT COSTS (A + B + C + D)			836.26	993.70

	Estimated cost per hectare	
	Dryland cotton	Irrigated cotton
	Quantity used per hectare (specify unit)	Quantity used per hectare (specify unit)
	Cost in US\$	Cost in US\$
Overhead costs		
Management & Administration	24.70	
Land cost (typical rental value)	18.53	
Other: General maintenance	26.05	
Interest & redemption payments on long-term loans	36.06	
Owner's capital	26.72	
III - TOTAL OVERHEAD COSTS	132.06	145.27
TOTAL COSTS FOR SEED COTTON (I + II)	968.32	1,138.97
MINUS		
Value of cotton seed extracted in ginning	132.38	202.98
NET COST FOR LINT	835.94	935.99
Net costs for lint in U.S. cents per pound	72.22	52.74
Rate of exchange used for converting Z\$ to U.S.\$	Z\$1.00 = U.S.\$1.35777	

Additional remarks: The figures derived are not actual national averages but estimates based on established physical input-output levels agreed upon between the Ministry of Agriculture and Farmers' unions. These costs are updated by utilizing current price information, and future viability is assessed by use of various forecasting techniques. These costs are applicable to cotton grown in the commercial farming sector of the country: they are not relevant to peasant agriculture where the level of physical input usage is extremely low.