

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



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| CONTENTS   |  | Page  |
|--|--|-------|
| Introduction (English, French & Spanish) . . . . . |  | 2 - 7 |
| Statements received from:                          |  |       |
| Australia . . . . .                                |  | 8     |
| Brazil . . . . .                                   |  | 9     |
| Colombia . . . . .                                 |  | 10    |
| Egypt . . . . .                                    |  | 11    |
| El Salvador . . . . .                              |  | 13    |
| Honduras . . . . .                                 |  | 14    |
| India . . . . .                                    |  | 15    |
| Iran . . . . .                                     |  | 16    |
| Israel . . . . .                                   |  | 17    |
| Ivory Coast . . . . .                              |  | 18    |
| Kenya . . . . .                                    |  | 19    |
| Mexico . . . . .                                   |  | 20    |
| Morocco . . . . .                                  |  | 22    |
| Mozambique . . . . .                               |  | 24    |
| Nicaragua . . . . .                                |  | 25    |
| Nigeria . . . . .                                  |  | 26    |
| Pakistan . . . . .                                 |  | 27    |
| Paraguay . . . . .                                 |  | 28    |
| South Africa . . . . .                             |  | 29    |
| Spain . . . . .                                    |  | 31    |
| Syria . . . . .                                    |  | 32    |
| Tanzania . . . . .                                 |  | 33    |
| Thailand . . . . .                                 |  | 34    |
| Turkey . . . . .                                   |  | 35    |
| United States . . . . .                            |  | 36    |
| Venezuela . . . . .                                |  | 38    |

(This document available in English only)

## SURVEY OF COST OF PRODUCTION OF RAW COTTON

INTRODUCTION

In recent years, cotton has been facing tough competition for land from alternative crops in many parts of the world. While price parity is an important determinant of acreage shifts between different crops, an equally significant factor is the cost of production. In this context, government policies in a number of countries are increasingly playing a key role in inter-crop competition - through price supports, allocation/subsidization of inputs, direct acreage allotments, etc.

The ICAC has previously conducted surveys of the cost of producing cotton in 1971, 1972, 1975 and 1976. The 35th Plenary Meeting instructed the Secretariat to conduct another survey on similar lines. The questionnaire was further refined for the 1977 survey in the light of comments received on last year's report. One of the basic changes has been to extend the inquiry to include the quantities of inputs, in addition to costs.

The findings of the 1977 survey should be viewed in the light of certain limitations. A number of countries, including some large producers, did not reply and some of the responses are incomplete. The information submitted often contains elements of subjective assessment. While comparisons between countries are difficult due to differences in methodology, subsidies for inputs provided by some countries, etc., comparisons over time face added problems, e.g. fluctuations in exchange values, as well as currency management practices adopted by certain countries.

The main components of cotton production costs are direct costs and overhead costs. Direct costs are those items that are clearly associated with the production of a specific crop and include on-farm production and harvesting costs, as well as off-farm costs such as transportation and ginning charges. Overhead or indirect costs include payments for items such as management and land. Net costs for lint per hectare have been obtained by subtracting the value of cottonseed from total costs of producing seed cotton. After taking into account the estimated yield per hectare, the net costs are also presented in U.S. cents per pound.

Cotton production costs vary greatly among countries as well as between regions within a country depending on such factors as extent of mechanization, methods of irrigation, application of fertilizers, varieties grown, pest control measures, other agricultural practices, and average size of farms. Of course, per unit cost is also a function of yields.

Since the early 1970's, cotton production costs have increased continuously as the cost of inputs, notably fertilizers, chemicals, land and labor have risen sharply in many countries. To get an idea of cost trends, data were analyzed for the ten countries that had replied to all of our cost of production surveys. A simple yearly average of their total cotton production costs per hectare was computed for 1970, 1974, 1975 and 1976 crop years. The resulting average cost for the respective years was 336, 619, 678, and 818 U.S. dollars per hectare. In other words, in the short span of four years, 1970 to 1974, cotton production cost increased by some 84 percent. While yearly data are not available for each of the four years, the cost increase was probably quite significant during 1973 and 1974, in keeping with the rapid rate of inflation at that time. However, the increase in cotton production costs moderated for the 1975 crop - up by only around 9 percent from the 1974 level.

Judging, again, from this group of ten countries, production costs resumed their uptrend in 1976, with the average per hectare cost at 20 percent above 1975.

Looking at individual cost items, labor registered another appreciable increase in 1976. In Iran, for instance, the cost of labor for agricultural operations and harvesting reached \$350 per hectare, 13 percent above the previous year and more than four times that of 1970/71. Significant increases in labor costs were also reported in several other countries, for example, Spain, Syria, Colombia

and Pakistan. The cost of labor is the major component of production costs in regions utilizing labor intensive methods of production. Thus, while labor cost represented more than 40 percent of the total production cost in Egypt, the corresponding figure for the United States was only 7 percent.

The growing use of machinery in cotton cultivation and harvesting emphasizes the importance of items related to power and equipment in the production cost structure. The combined cost of these items has at least doubled since the beginning of this decade in most countries. In the United States, per hectare cost of power and equipment was estimated at about \$191 compared to \$156 a year earlier and \$89 in 1970/71.

The cost of irrigation varies greatly among different areas depending on the extent and method of irrigation, as well as the rates for water. In some countries, irrigation costs vary widely from year to year. In Israel, for instance, the cost of irrigation rose from \$58 per hectare in 1974 to \$356 in 1975, but fell to \$185 last year. Spain, Egypt and Pakistan reported the smallest variation in these costs.

Fertilizers and other agricultural chemicals have, in recent years, become a major cost item for cotton production. There has been a sharp rise in prices compared to earlier years, together with increased application of fertilizers and other chemicals in many areas. However, the rapid increases in prices of these items have not been sustained during the last two years due to greater supplies. As a result, some countries, notably the United States, Syria, Spain, Pakistan and Colombia, actually reported a decline in fertilizer cost for the 1976 crop. A number of countries subsidize the use of these items in the interest of improving yields. In Tanzania, for example, fertilizer prices were subsidized by 50 percent and insecticides and fungicides by 75 percent.

With only a few exceptions, off-farm direct costs -- mainly the cost of transportation to gins and ginning charges -- rose at a relatively moderate rate in 1976 compared to earlier years. Significant variations in transportation and ginning charges are sometimes observed even in the individual countries themselves. For example, transportation cost in the Mexicali region of Mexico was almost double that of the Chihuahua region.

For the responding countries, net production cost for lint last year ranged from \$96 per hectare in Tanzania to \$1,458 in Spain. In Tanzania, cotton is grown by small holders, under rainfed conditions, and production is heavily subsidized by the government. Labor is the major input and, after deduction of the few variable costs, the gross margin can be considered as a return to family labor since, usually, no outside labor is hired. On the other extreme, the high net cost per hectare in Spain is due largely to heavy application of production inputs, especially fertilizers.

## ENQUETE SUR LES COÛTS DE PRODUCTION DU COTON BRUT

INTRODUCTION

Depuis quelques années, le coton se heurte, dans de nombreuses parties du monde, à une dure concurrence de la part de cultures de remplacement qui cherchent à occuper les mêmes terres. Si les rapports de prix constituent un élément important lorsqu'il s'agit de choisir une culture de préférence à une autre, le coût de production est un autre élément d'un poids tout aussi grand. Dans ce contexte, les politiques pratiquées par un certain nombre de pays jouent un rôle de plus en plus déterminant dans la concurrence que les cultures se font les unes aux autres - par le truchement des soutiens de prix, de l'allocation ou de la subvention des facteurs de production, de l'affectation directe des superficies, etc.

Le CCIC a déjà effectué des enquêtes sur les coûts de production du coton en 1971, 1972, 1975 et 1976. La 35e Réunion Plénière a chargé le Secrétariat d'effectuer à nouveau une enquête analogue. Pour l'enquête de 1977, le questionnaire a été aménagé compte tenu des observations qui avaient été formulées au sujet du rapport de l'année dernière. L'un des changements fondamentaux consiste à élargir l'enquête en y ajoutant une question concernant la quantité des facteurs de production employés.

Les résultats de l'enquête de 1977 doivent être examinés en tenant compte de certaines contraintes. Plusieurs producteurs, parmi lesquels figurent des pays importants, n'ont pas répondu au questionnaire; par ailleurs, certaines réponses ne sont pas complètes. Souvent, les renseignements fournis contiennent des éléments d'appréciation subjective. Si les comparaisons entre pays sont difficiles à effectuer en raison des différences de méthodes, de subvention des facteurs de production qui apparaissent entre les pays, etc., les comparaisons se heurtent parfois aussi à d'autres problèmes, tels que les fluctuations des taux de change, ainsi que les pratiques de gestion monétaire que suivent certains pays.

Les principaux éléments des coûts de production du coton sont les coûts directs et les frais généraux. On entend par coûts directs les coûts qui ont un rapport certain avec la production de tel ou tel produit : ils englobent, par exemple, les coûts de culture et de cueillette, dans l'exploitation, ainsi que les frais encourus en dehors de celle-ci, tels que les frais de transports et d'égrenage. Les frais généraux, ou coûts indirects, englobent les sommes versées par exemple au titre de la gestion et des terrains. On a obtenu les coûts nets de la fibre à l'hectare en soustrayant la valeur de la graine du total des coûts de production du coton-graine. Compte tenu du rendement estimatif à l'hectare, nous présentons également les coûts nets en cents U.S. la livre.

Les coûts de production du coton varient considérablement d'un pays à l'autre, ainsi que d'une région à l'autre d'un même pays, en fonction d'éléments tels que le degré de mécanisation, les méthodes d'irrigation, l'emploi d'engrais, les variétés cultivées, les mesures de lutte contre les fléaux, les autres façons culturales, et la dimension moyenne des exploitations. Bien entendu, le prix unitaire est, lui aussi, fonction des rendements.

Depuis le début des années soixante-dix, les coûts de production du coton n'ont cessé d'augmenter; en effet, les coûts des facteurs de production, notamment engrais, produits chimiques, terres et main-d'oeuvre, ont subi une hausse brutale dans de nombreux pays. Pour se faire une idée des tendances des coûts, nous avons analysé les données concernant les dix pays qui ont répondu à toutes nos enquêtes sur les coûts de production. On a calculé, pour les campagnes 1970, 1974, 1975 et 1976, une simple moyenne annuelle du total de leurs coûts de production. Pour ces campagnes, on a obtenu un coût moyen, respectivement, de 336, 619, 678, et 818 dollars U.S. à l'hectare. En d'autres termes, dans le bref espace de quatre ans, de 1970 à 1974, les coûts de production ont augmenté de quelque 84 pour cent. Bien qu'on ne possède pas des données annuelles correspondant à chacune de ces quatre campagnes, il est probable que les augmentations de coûts ont été très significatives en 1973 et 1974, compte tenu de la cadence rapide de l'inflation à cette époque. Cependant, l'accroissement des coûts de production du coton s'est modéré pendant la campagne 1975 - tombant aux alentours de 9 pour cent par rapport à son niveau de 1974.

A en juger, une fois encore, d'après ce groupe de dix pays, les coûts de production se sont remis à augmenter en 1976 : la moyenne par hectare dépasse en effet de 20 pour cent son chiffre de 1975.

Si l'on examine les divers éléments des coûts, on s'aperçoit que le prix de la main-d'oeuvre a de nouveau augmenté de façon appréciable en 1976. En Iran, par exemple, les coûts de la main-d'oeuvre employée pour les opérations agricoles et la cueillette a atteint \$350 à l'hectare, soit 13 pour cent de plus que pendant la campagne précédente et plus du quadruple du chiffre de 1970/71. Plusieurs autres pays ont également indiqué des augmentations significatives des coûts de main-d'oeuvre; c'est le cas, par exemple, de l'Espagne, de la Syrie, de la Colombie et du Pakistan. Ainsi donc, le coût de la main-d'oeuvre est le principal élément des coûts de production dans les régions où la production fait appel à une main-d'oeuvre abondante. C'est ainsi que, tandis que les frais de main-d'oeuvre représentent plus de 40 pour cent du total des coûts de production en Egypte, leur chiffre est seulement 7 pour cent pour les Etats-Unis.

L'emploi de plus en plus répandu de machines pour la culture et la cueillette du coton souligne l'importance que revêtent, dans la structure des coûts de production, les éléments qui sont liés à l'énergie et au matériel. Le coût combiné de ces éléments a au moins doublé dans la plupart des pays depuis le début de la présente décennie. Aux Etats-Unis, le coût de l'énergie et du matériel à l'hectare a été estimé à \$191, contre \$156 un an auparavant et \$89 en 1970/71.

Le coût de l'irrigation varie beaucoup entre les régions selon l'intensité et la méthode de l'irrigation, ainsi que les tarifs de l'eau. Dans certains pays, le prix de l'irrigation varie beaucoup d'une année à l'autre. En Israël, par exemple, le coût de l'irrigation est passé de \$58 à l'hectare en 1974 à \$356 en 1975, pour tomber à \$185 pendant la dernière campagne. L'Espagne, l'Egypte et le Pakistan sont les pays où les variations de ces coûts ont été les plus faibles.

Les engrais et autres produits chimiques agricoles sont devenus, depuis quelques années, un élément important des coûts de production du coton. Leurs prix ont fortement augmenté par rapport aux campagnes précédentes, alors que l'emploi d'engrais chimiques et autres produits chimiques s'intensifiait dans de nombreuses régions. Cependant, à la suite de l'accroissement de l'offre, les prix de ces produits n'ont pas poursuivi leur mouvement de hausse rapide durant les deux dernières campagnes. Certains pays, dont en particulier les Etats-Unis, la Syrie, l'Espagne, le Pakistan et la Colombie, ont signalé en fait une baisse des coûts des engrais pour la campagne 1976. Un certain nombre de pays subventionnent l'emploi de ces produits afin d'améliorer les rendements. En Tanzanie, par exemple, les engrais ont fait l'objet d'une subvention de 50 pour cent, et les insecticides et fongicides d'une subvention de 75 pour cent.

A quelques exceptions près, les coûts directs encourus en dehors de l'exploitation - surtout frais du transport aux usines d'égrenage et frais d'égrenage - ont subi une hausse relativement modérée en 1976 par rapport aux campagnes précédentes. On observe parfois, même à l'intérieur d'un pays, des variations significatives des frais de transport et d'égrenage. Par exemple, les frais de transport dans la région de Mexicali, au Mexique, sont près du double de ceux de la région de Chihuahua.

Dans le cas des pays qui ont répondu au questionnaire, le coût net de production de la fibre, pendant la dernière campagne, est allé de \$96 à l'hectare en Tanzanie à \$1.458 en Espagne. En Tanzanie, le coton est cultivé par de petits propriétaires, en culture sèche, et l'Etat accorde de fortes subventions à la production. La main-d'oeuvre est le principal facteur de production et, déduction faite de quelques coûts variables, la marge brute peut être considérée comme la rémunération du travail familial; en effet, en règle générale, le producteur ne recourt pas à une main-d'oeuvre de l'extérieur. A l'autre extrême, le coût net élevé à l'hectare en Espagne s'explique essentiellement par l'emploi intensif de facteurs de production, notamment d'engrais.

## ENCUESTA DEL COSTO DE LA PRODUCCION DE ALGODON EN RAMA

INTRODUCCION

En los últimos años el algodón se ha venido enfrentando a una intensa competición con otros cultivos en muchas partes del mundo para utilizar tierras laborables. Si bien la paridad de los precios es un factor importante que determina los cambios en el aprovechamiento de tierras entre diferentes cultivos, otro factor igualmente significativo es el costo de producción. Habida cuenta de estas circunstancias, las políticas gubernamentales de varios países están desempeñando una función clave cada vez mayor en la competencia entre cultivos mediante el establecimiento de precios de sostén, asignación y subvencionamiento de insumos, asignación directa de superficie de cultivos, etc.

El CCIA ha llevado a cabo con anterioridad encuestas relativas al costo de la producción de algodón en 1971, 1972, 1975 y 1976. En la 35a. Reunión Plenaria se dieron instrucciones a la Secretaría para que realizara otra encuesta siguiendo pautas similares. El cuestionario se refinó todavía más para la encuesta de 1977 a la luz de las observaciones recibidas con respecto al informe del año pasado. Uno de los cambios básicos ha consistido en ampliar la encuesta de suerte que incluya las cantidades de insumos, además de los costos.

Las comprobaciones de la encuesta de 1977 deberán verse a la luz de ciertas limitaciones. Varios de los países, entre ellos algunos grandes productores, no enviaron sus respuestas y algunas de éstas son incompletas. La información presentada contiene con frecuencia elementos de evaluación subjetiva. Si bien el establecer comparaciones entre países resulta difícil debido a las diferencias en metodología, los subsidios pagados por insumos por algunos países, y otros factores, las comparaciones en el curso del tiempo se enfrentan a problemas adicionales, como son las fluctuaciones en los valores paritarios, así como las prácticas de administración de la moneda adoptadas por ciertos países.

Los principales componentes de los costos de producción del algodón son los costos directos y los gastos generales. Los costos directos son aquellas partidas claramente asociadas con la producción de una cosecha específica y comprenden los costos de producción en la granja y los de cosechado, así como los costos fuera de la granja, tales como los cargos por concepto de transporte y desmote. Los gastos generales o indirectos incluyen los pagos de partidas como la de administración y tierras. Los costos netos de la fibra de algodón por hectárea se han obtenido sustrayendo el valor de la semilla de algodón de los costos totales de producir algodón con semilla. Después de tener en cuenta el rendimiento estimado por hectárea, los costos netos también se presentan en centavos de los Estados Unidos por libra.

Los costos de producción del algodón varían muchísimo entre países y también entre regiones dentro de un mismo país, lo cual depende de factores como el grado de mecanización, los métodos de riego, la aplicación de fertilizantes, las variedades que se cultivan, otras prácticas agrícolas y la superficie promedio de las granjas. Por supuesto, el costo unitario es también una función de los rendimientos.

Desde comienzos del decenio de 1970, los costos de producción del algodón se han incrementado continuamente toda vez que el costo de los insumos, sobre todo de los fertilizantes, productos químicos, tierra y mano de obra se han elevado acentuadamente en muchos países. A fin de tener una idea de las tendencias de los costos se analizaron los datos de los diez países que respondieron a todas nuestras encuestas de los costos de producción. Se computó un promedio anual simple de sus costos totales de producción de algodón por hectárea con respecto a los años de cultivo de 1970, 1974, 1975 y 1976. Resultó un costo promedio para los años respectivos de 336, 619, 678 y 818 dólares por hectárea. En otras palabras, en el breve lapso de cuatro años, de 1970 a 1974, los costos de producción del algodón aumentaron en alrededor del 84%. Si bien no se dispone de datos anuales con respecto a cada uno de los cuatro años, es probable que el incremento de los costos fuera bastante importante durante 1973 y 1974, en consonancia con la rápida tasa de inflación registrada en aquellos años. Sin embargo, el aumento de esos costos se

moderó para la cosecha de 1975, ya que sólo se incrementaron en alrededor del 9% con respecto al nivel de 1974.

Juzgando, de nuevo, por este grupo de diez países, los costos de producción reanudaron su tendencia alcista en 1976, ya que el costo promedio por hectárea fue del 20% superior al de 1975.

Al examinar cada una de las partidas de costos se observa que la mano de obra registró otro apreciable aumento en 1976. En el Irán, por ejemplo, el costo de la mano de obra para las operaciones agrícolas y la cosecha alcanzó \$350 por hectárea, lo que representa un 13% por encima del nivel del año anterior y más de cuatro veces el de 1970/71. También se informó que hubo importantes incrementos en los costos de la mano de obra en varios otros países, como España, Siria, Colombia, y Pakistán. Ese costo es el principal componente de los costos de producción en regiones que utilizan métodos de producción con gran intensidad de mano de obra. Por consiguiente, si bien el costo de la mano de obra representó más del 40% del costo total de producción en Egipto, la cifra correspondiente en los Estados Unidos fue de sólo el 7 por ciento.

El uso creciente de maquinaria en las operaciones de cultivo y cosechado del algodón subraya la importancia de las partidas relacionadas con fuerza motriz y equipo en la estructura de los costos de producción. El costo combinado de esas partidas se ha duplicado por lo menos desde el comienzo de este decenio en la mayoría de los países. En los Estados Unidos, el costo por hectárea de fuerza motriz y equipo se estimó en alrededor de \$191, comparado con \$156 un año antes y \$89 en 1970/71.

El costo del riego varía en gran escala entre diferentes zonas, lo cual depende de la amplitud y el método de riego utilizado, así como de las tarifas por consumo de agua. En algunos países los costos del riego varían muchísimo de un año para otro. En Israel, por ejemplo, el costo de riego se elevó de \$58 por hectárea en 1974 a \$356 en 1975, pero descendió a \$185 el año pasado. España, Egipto y Pakistán informaron haber tenido la variación más reducida en esos costos.

En los últimos años los fertilizantes y otros productos químicos utilizados en la agricultura se han convertido en una partida de costos muy importante para la producción aldonera. Por comparación con años anteriores se ha registrado un brusco aumento en los precios, junto con una mayor aplicación de fertilizantes y otros productos químicos en muchas zonas. Sin embargo, en los dos últimos años no se ha sostenido el rápido incremento de los precios de esos artículos debido a que se ha contado con un mayor volumen de suministros. Como consecuencia, algunos países, como los Estados Unidos, España, Siria, Pakistán y Colombia, informaron haber registrado un descenso real en los costos de fertilizantes para la cosecha de 1976. Varios países subsidian la utilización de esos insumos con objeto de mejorar los rendimientos. En Tanzania, por ejemplo, los precios de los fertilizantes fueron subsidiados en 50% y los de insecticidas y fungicidas en 75 por ciento.

Con sólo pocas excepciones, los costos directos fuera de la granja - principalmente el costo de transporte a las plantas desmotadoras y los cargos por la operación de desmote - se elevaron a una tasa relativamente moderada en 1976 por comparación con años anteriores. En ocasiones se observaron importantes diferencias en los costos de transporte y desmote incluso dentro de los propios países. Por ejemplo, los costos de transporte en el estado de Mexicali, México, fueron casi el doble de los del estado de Chihuahua.

En lo que se refiere a los países que contestaron al cuestionario, los costos netos de producción de la fibra de algodón el año pasado oscilaron de \$96 por hectárea en Tanzania a \$1.458 en España. En Tanzania el algodón lo cultivan pequeños propietarios, en condiciones de cultivo de secano y la producción recibe un fuerte subsidio del Gobierno. La mano de obra es el principal insumo y, después de deducir los pocos costos variables, el margen bruto se puede considerar como un rendimiento de la mano de obra familiar toda vez que, usualmente, no se contrata mano de obra fuera de ella. En el extremo opuesto, el elevado costo neto por hectárea en España se debe en gran medida a la intensa aplicación de insumos de producción, sobre todo fertilizantes.



Country AUSTRALIA 1/ Crop year 1976

Yield used (kilos per hectare)  
 - for seed (unginned cotton) 1,300  
 - for cotton lint 405

| Item   | Average estimated cost per hectare      |              |
|--|---|--------------|
|  | Quantity used per ha.<br>(specify unit) | Cost in US\$ |
| <u>On farm direct costs</u>  |   |              |
| <u>Preharvesting:</u>  |   |              |
| Labor . . . . .  |   | \$187.00     |
| Power . . . . .  |   | 171.00       |
| Equipment . . . . .  |   | 14.00        |
| Seed . . . . .   |   | 33.00        |
| Fertilizer . . . . .   |   | 25.00        |
| Herbicides . . . . .   |   | 152.00       |
| Insecticides & fungicides . . . . .  |   | 17.00        |
| Defoliant & other chemicals . . . . .  |   | 42.00        |
| Irrigation . . . . .   |   | -            |
| Custom or contract work . . . . .  |   | -            |
| Other (specify) _____  |   | -            |
| Subtotal . . . . .   |   | 641.00       |
| <u>Harvesting:</u>   |   |              |
| Labor . . . . .  |   | 55.00        |
| Power . . . . .  |   | 44.00        |
| Equipment . . . . .  |   | -            |
| Custom or contract work . . . . .  |   | -            |
| Other (specify) _____  |   | -            |
| Subtotal . . . . .   |   | 99.00        |
| <u>Interest on operating capital</u> . . . . .                                   |   | -            |
| <u>Off farm direct costs</u>   |   |              |
| Transportation to gin . . . . .  |   | 6.00         |
| Ginning (including bagging & ties) . . . . .                                     |   | 110.00       |
| Other (specify) _____  |   | -            |
| Subtotal . . . . .   |   | 116.00       |
| <u>Total direct costs</u> . . . . .  |   | 856.00       |
| <u>Overhead costs</u>  |   |              |
| Management & administration . . . . .  |   | 50.00        |
| Land cost (typical rental value) . . . . .                                       |   | -            |
| Other (specify) _____  |   | -            |
| <u>Total overhead costs</u> . . . . .  |   | 50.00        |
| <u>TOTAL COSTS FOR SEED COTTON</u> . . . . .                                     |   | 906.00       |
| MINUS - value of cottonseed<br>extracted in ginning . . . . .                    |   | 138.00       |
| <u>NET COSTS FOR LINT</u> . . . . .  |   | 768.00       |
| <u>Net costs for lint in US cents per pound</u>                                  |   | 86.02        |
| Rate of exchange used for converting<br>local currency into US dollars . . . . . | 1.10 U.S. dollar = A\$1                 |              |
| <u>Additional remarks:</u>   |   |              |
| 1/ New South Wales   |   |              |

Country BRAZIL Crop year 1975/76

Yield used (kilos per hectare)  
 - for seed (unginned cotton) \_\_\_\_\_  
 - for cotton lint 454

| Item   | Average estimated cost per hectare      |              |
|--|---|--------------|
|  | Quantity used per ha.<br>(specify unit) | Cost in US\$ |
| <u>On farm direct costs</u>  |   |              |
| <u>Preharvesting:</u>  |   |              |
| Labor . . . . .  |   |              |
| Power . . . . .  |   |              |
| Equipment . . . . .  |   |              |
| Seed . . . . .   |   |              |
| Fertilizer . . . . .   |   |              |
| Herbicides . . . . .   |   |              |
| Insecticides & fungicides . . . . .  |   |              |
| Defoliant & other chemicals . . . . .  |   |              |
| Irrigation . . . . .   |   |              |
| Custom or contract work . . . . .  |   |              |
| Other (specify) _____  |   |              |
| Subtotal . . . . .   |   |              |
| <u>Harvesting:</u>   |   |              |
| Labor . . . . .  |   |              |
| Power . . . . .  |   |              |
| Equipment . . . . .  |   |              |
| Custom or contract work . . . . .  |   |              |
| Other (specify) _____  |   |              |
| Subtotal . . . . .   |   |              |
| <u>Interest on operating capital</u> . . . . .                                   |   |              |
| <u>Off farm direct costs</u>   |   |              |
| Transportation to gin . . . . .  |   |              |
| Ginning (including bagging & ties)<br>Other (specify) _____                      |   |              |
| Subtotal . . . . .   |   |              |
| <u>Total direct costs</u> . . . . .  |   |              |
| <u>Overhead costs</u>  |   |              |
| Management & administration . . . . .  |   |              |
| Land cost (typical rental value)<br>Other (specify) _____                        |   |              |
| <u>Total overhead costs</u> . . . . .  |   |              |
| TOTAL COSTS FOR SEED COTTON . . . . .  |   |              |
| MINUS - value of cottonseed<br>extracted in ginning . . . . .                    |   |              |
| NET COSTS FOR LINT . . . . .   |   | 433.02       |
| Net costs for lint in US cents per pound   |   | 43.25        |
| Rate of exchange used for converting<br>local currency into US dollars . . . . . | 1 U.S. dollar = 13.63 Cruzeiros         |              |
| <u>Additional remarks:</u>   |   |              |

Country COLOMBIA Crop year 1976/77

Yield used (kilos per hectare)  
 - for seed (unginned cotton) 1,500  
 - for cotton lint 514

| Item   | Average estimated cost per hectare      |   |
|--|---|---|
|  | Quantity used per ha.<br>(specify unit) | Cost in US\$  |
| <u>On farm direct costs</u>  |   |   |
| <u>Preharvesting:</u>  |   |   |
| Labor . . . . .  |   | 137.59  |
| Power . . . . .  |   | 177.84  |
| Equipment . . . . .  |   | 16.43   |
| Seed . . . . .   |   | 32.26   |
| Fertilizer . . . . .   |   | 31.96   |
| Herbicides . . . . .   |   | 258.14  |
| Insecticides & fungicides . . . . .  |   | -   |
| Defoliant & other chemicals . . . . .  |   | -   |
| Irrigation . . . . .   |   | 25.41   |
| Custom or contract work . . . . .  |   | -   |
| Other (specify) _____  |   | -   |
| Subtotal . . . . .   |   | 679.63  |
| <u>Harvesting:</u>   |   |   |
| Labor . . . . .  |   | Harvesting cost<br>assumed to be in-<br>cluded in pre-<br>harvest cost. |
| Power . . . . .  |   |   |
| Equipment . . . . .  |   |   |
| Custom or contract work . . . . .  |   |   |
| Other (specify) _____  |   |   |
| Subtotal . . . . .   |   |   |
| <u>Interest on operating capital</u> . . . . .                                   |   | -   |
| <u>Off farm direct costs</u>   |   |   |
| Transportation to gin . . . . .  |   | 19.17   |
| Ginning (including bagging & ties)<br>Other (specify) _____                      |   |   |
| Subtotal . . . . .   |   | 19.17   |
| <u>Total direct costs</u> . . . . .  |   | 698.80  |
| <u>Overhead costs</u>  |   |   |
| Management & administration . . . . .  |   | 21.30   |
| Land cost (typical rental value)<br>Other (specify) _____                        |   | 136.98  |
| <u>Total overhead costs</u> . . . . .  |   | 158.28  |
| TOTAL COSTS FOR SEED COTTON . . . . .  |   | 857.08  |
| MINUS - value of cottonseed<br>extracted in ginning . . . . .                    |   | 273.97  |
| NET COSTS FOR LINT . . . . .   |   | 583.11  |
| <u>Net costs for lint in US cents per pound</u>                                  |   | 51.46 *   |
| Rate of exchange used for converting<br>local currency into US dollars . . . . . | 1 U.S. dollar = 32.85 pesos             |   |
| <u>Additional remarks:</u>   |   |   |
| * Computed by ICAC Secretariat   |   |   |

Country EGYPTCrop year 1976

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

| Item   | Average cost/hectare |
|--|----------------------|
| <u>1/ Agricultural operations:</u>                     | <u>US \$</u>         |
| Land preparation . . . . .                             | 52.67                |
| Seed and sowing . . . . .                              | 20.99                |
| Irrigation . . . . .                                   | 60.02                |
| Manuring/Fertilizing . . . . .                         | 109.29               |
| Hoeing and weeding . . . . .                           | 76.94                |
| Plant protection . . . . .<br>(Pest control operation) | 78.31                |
| Picking and transportation . . .                       | 145.91               |
| Other expenses . . . . .                               | 16.55                |
| Total cost . . . . .                                   | 560.68               |
| Rent . . . . .   | 197.60               |
| Total cost & rent . . . . .                            | 758.28               |

Continued . . . . .

## EGYPT (continued)

| Item                          | Average cost/hectare |
|-------------------------------|----------------------|
|                               | <u>US \$</u>         |
| <u>2/ By inputs:</u>          |                      |
| Labour . . . . .              | 309.68               |
| Animal power . . . . .        | 36.43                |
| Seeds . . . . .               | 8.83                 |
| Organic manure . . . . .      | 39.45                |
| Chemical fertilizer . . . . . | 56.93                |
| Cost of machinery . . . . .   | 47.67                |
| Insecticides . . . . .        | 45.14                |
| Other expenses . . . . .      | 16.55                |
| Total cost . . . . .          | 560.68               |
| Rent . . . . .                | 197.60               |
| Total cost & rent . .         | 758.28               |

Rate of exchange used: 1 U.S. dollar = 0.68 Egyptian Pounds. This is the current rate of exchange as used by the World Bank.

Country EL SALVADOR Crop year 1976/77

Yield used (kilos per hectare)  
 - for seed (unginned cotton) 2,465  
 - for cotton lint 863

| Item   | Average estimated cost per hectare      |              |
|--|---|--------------|
|  | Quantity used per ha.<br>(specify unit) | Cost in US\$ |
| <u>On farm direct costs</u>  |   |              |
| <u>Preharvesting:</u>  |   |              |
| Labor . . . . .  | 50 days                                 | 115.51       |
| Power . . . . .  | 30 passes                               | 165.14       |
| Equipment . . . . .  |   | 45.36        |
| Seed . . . . .   | 42 kgs.                                 | 6.20         |
| Fertilizer . . . . .   | 450 kgs.                                | 113.67       |
| Herbicides . . . . .   |   | 8.57         |
| Insecticides & fungicides . . . . .  | 71 kgs. I.A.                            | 313.09       |
| Defoliant & other chemicals . . . . .  |   | -            |
| Irrigation . . . . .   |   | -            |
| Custom or contract work . . . . .  |   | -            |
| Other (specify) _____  |   | -            |
| Subtotal . . . . .   |   | 767.54       |
| <u>Harvesting:</u>   |   |              |
| Labor . . . . .  | 57 days                                 | 168.29       |
| Power . . . . .  |   | -            |
| Equipment . . . . .  |   | 5.71         |
| Custom or contract work . . . . .  | 2 days                                  | 12.00        |
| Other (specify) _____  |   | -            |
| Subtotal . . . . .   |   | 186.00       |
| <u>Interest on operating capital</u> . . . . .                                   |   | 61.91        |
| <u>Off farm direct costs</u>   |   |              |
| Transportation to gin . . . . .  |   | 21.71        |
| Ginning (including bagging & ties) . . . . .                                     |   | -            |
| Other (specify) _____  |   | -            |
| Subtotal . . . . .   |   | 21.71        |
| <u>Total direct costs</u> . . . . .  |   | 1,037.16     |
| <u>Overhead costs</u>  |   |              |
| Management & administration . . . . .  |   | 34.99        |
| Land cost (typical rental value) . . . . .                                       |   | 142.85       |
| Other (specify) _____  |   | -            |
| <u>Total overhead costs</u> . . . . .  |   | 177.84       |
| TOTAL COSTS FOR SEED COTTON . . . . .  |   | 1,215.00     |
| MINUS - value of cottonseed<br>extracted in ginning . . . . .                    |   | -            |
| NET COSTS FOR LINT . . . . .   |   | -            |
| Net costs for lint in US cents per pound   |   | -            |
| Rate of exchange used for converting<br>local currency into US dollars . . . . . | 1 U.S. dollar = 2.50 Colones            |              |
| Additional remarks:  |   |              |

Country HONDURAS 1/ Crop year 1975/76

Yield used (kilos per hectare)  
 - for seed (unginned cotton) 1,300  
 - for cotton lint 460

| Item   | Average estimated cost per hectare      |              |
|--|---|--------------|
|  | Quantity used per ha.<br>(specify unit) | Cost in US\$ |
| <u>On farm direct costs</u>  |   |              |
| <u>Preharvesting:</u>  |   |              |
| Labor . . . . .  | 52.5 man-days                           | 78.75        |
| Power . . . . .  | 6.79 hours                              | 40.74        |
| Equipment . . . . .  | -                                       | -            |
| Seed . . . . .   | 13 kg.                                  | 5.72         |
| Fertilizer . . . . .   | -                                       | 55.71        |
| Herbicides . . . . .   | -                                       | -            |
| Insecticides & fungicides . . . . .  | -                                       | 125.00       |
| Defoliant & other chemicals . . . . .  | -                                       | -            |
| Irrigation . . . . .   | -                                       | -            |
| Custom or contract work . . . . .  | -                                       | -            |
| Other (specify) <u>Aerial spraying</u>   | -                                       | -            |
| <u>costs</u>   |   | 35.71        |
| Subtotal . . . . .   |   | 341.63       |
| <u>Harvesting:</u>   |   |              |
| Labor . . . . .  | 28.96 man-days                          | 43.44        |
| Power . . . . .  | 3.17 hours                              | 19.02        |
| Equipment . . . . .  | -                                       | -            |
| Custom or contract work . . . . .  | -                                       | -            |
| Other (specify) _____  | -                                       | -            |
| Subtotal . . . . .   |   | 62.46        |
| <u>Interest on operating capital</u> . . . . .                                   |   | -            |
| <u>Post-Harvesting:</u>  |   |              |
| Transportation to gin . . . . .  |   | 14.29        |
| Ginning (including bagging & ties)   |   | -            |
| Other (specify) <u>Stalk destruction</u>   |   | 7.50         |
| Subtotal . . . . .   |   | 21.79        |
| <u>Total direct costs</u> . . . . .  |   | 425.88       |
| <u>Overhead costs</u>  |   |              |
| Management & administration . . . . .  |   | -            |
| Land cost (typical rental value)   |   | -            |
| Other (specify) _____  |   | -            |
| <u>Total overhead costs</u> . . . . .  |   | -            |
| TOTAL COSTS FOR SEED COTTON . . . . .  |   | 425.88       |
| MINUS - value of cottonseed<br>extracted in ginning . . . . .                    |   | -            |
| NET COSTS FOR LINT . . . . .   |   | -            |
| Net costs for lint in US cents per pound   |   | -            |
| Rate of exchange used for converting<br>local currency into US dollars . . . . . | 1 U.S. dollar = 2 Lempiras              |              |
| <u>Additional remarks:</u>   |   |              |
| 1/ Olancho Region  |   |              |

Country INDIA Crop year 1975/76

|                                |          |          |          |          |
|--------------------------------|----------|----------|----------|----------|
| Yield used (kilos per hectare) |          |          |          |          |
| - for seed (unginned cotton)   | 1,850 1/ | 2,225 2/ | 1,977 3/ | 1,014 4/ |
| - for cotton lint              | 610 1/   | 734 2/   | 652 3/   | 235 4/   |

| Item   | Average estimated cost per hectare |           |         |        |
|--|------------------------------------|-----------|---------|--------|
|  | MCU-5                              | Varalaxmi | H-4/H-5 | 320F   |
| <u>On farm direct costs</u>  |                                    |           |         |        |
|  |                                    | \$ US     |         |        |
| <u>Preharvesting:</u>  |                                    |           |         |        |
| Labor . . . . .  | 182.22                             | 179.22    | 112.33  | 57.11  |
| Power . . . . .  | -                                  | -         | -       | -      |
| Equipment . . . . .  | -                                  | -         | -       | -      |
| Seed . . . . .   | 2.56                               | 3.89      | 4.78    | 2.56   |
| Fertilizer . . . . .   | 149.11                             | 158.56    | 54.67   | 20.89  |
| Herbicides . . . . .   |                                    |           |         |        |
| Insecticides & fungicides . . . . .  | 82.56                              | 133.33    | 108.44  | 18.56  |
| Defoliant & other chemicals . . . . .  |                                    |           |         |        |
| Irrigation . . . . .   | 15.56                              | 14.78     | 12.33   | 3.22   |
| Custom or contract work . . . . .  | -                                  | -         | -       | -      |
| Other (specify) . . . . .  | -                                  | -         | -       | -      |
| Subtotal . . . . .   | 432.01                             | 489.78    | 292.55  | 102.34 |
| <u>Harvesting:</u>   |                                    |           |         |        |
| Labor . . . . .  | 40.00                              | 43.00     | 32.11   | 22.89  |
| Power . . . . .  | -                                  | -         | -       | -      |
| Equipment . . . . .  | -                                  | -         | -       | -      |
| Custom or contract work . . . . .  | -                                  | -         | -       | -      |
| Other (specify) . . . . .  | -                                  | -         | -       | -      |
| Subtotal . . . . .   | 40.00                              | 43.00     | 32.11   | 22.89  |
| <u>Interest on operating capital</u> . . . . .   | 29.22                              | 32.89     | 19.78   | 6.89   |
| <u>Off farm direct costs</u>   |                                    |           |         |        |
| Transportation to gin . . . . .  | 1.89                               | 2.78      | 1.67    | 3.33   |
| Ginning (including bagging & ties) . . . . .   | 210.00                             | 303.11    | 228.89  | 145.56 |
| Other (specify) . . . . .  | -                                  | -         | -       | -      |
| Subtotal . . . . .   | 241.11                             | 338.78    | 250.34  | 155.78 |
| <u>Total direct costs</u> . . . . .  | 713.12                             | 871.56    | 575.00  | 281.01 |
| <u>Overhead costs</u>  |                                    |           |         |        |
| Management & administration . . . . .  | -                                  | -         | -       | -      |
| Land cost (typical rental value) . . . . .   | 138.89                             | 138.89    | 138.89  | 138.89 |
| Other (specify) <u>depreciation of machinery, maintenance of cattle, etc</u> . . . . . | 86.11                              | 41.67     | 144.22  | 3.44   |
| <u>Total overhead costs</u> . . . . .  | 225.00                             | 180.56    | 283.11  | 142.33 |
| <u>TOTAL COSTS FOR SEED COTTON</u> . . . . .   | 938.12                             | 1,052.12  | 858.11  | 423.34 |
| MINUS - value of cottonseed extracted in ginning . . . . .                             | 180.00                             | 186.67    | 187.56  | 93.33  |
| <u>NET COSTS FOR LINT</u> . . . . .  | 758.12                             | 865.45    | 670.55  | 330.01 |
| <u>Net costs for lint in US cents per pound</u>  | 56.37                              | 53.48     | 46.65   | 63.70  |
| Rate of exchange used for converting local currency into US dollars . . . . .          | \$ US 1 = Rs. 9                    |           |         |        |

Additional remarks:  
 1/ MCU-5. 2/ Varalaxmi. 3/ H-4/H-5. 4/ 320F.



Country IRAN Crop year 1977

Yield used (kilos per hectare)  
 - for seed (unginned cotton) 1,600  
 - for cotton lint 520

| Item   | Average estimated cost per hectare      |              |
|--|---|--------------|
|  | Quantity used per ha.<br>(specify unit) | Cost in US\$ |
| <u>On farm direct costs</u>  |   |              |
| <u>Preharvesting:</u>  |   |              |
| Labor . . . . .  | 40 persons                              | 200.00       |
| Power . . . . .  | 3-1/2 hours                             | 23.00        |
| Equipment . . . . .  | 65 h.p. tractor                         | 26.40        |
| Seed . . . . .   | 50 kgs.                                 | 7.10         |
| Fertilizer . . . . .   | 200 kgs.                                | 33.00        |
| Herbicides . . . . .   | -                                       | -            |
| Insecticides & fungicides . . . . .  | 4 sprayings                             | 100.00       |
| Defoliant & other chemicals . . . . .  | -                                       | -            |
| Irrigation . . . . .   | -                                       | -            |
| Custom or contract work . . . . .  | -                                       | -            |
| Other (specify) _____  | 5 - 8 times,<br>irrigation              | 71.50        |
| Subtotal . . . . .   |   | 461.00       |
| <u>Harvesting:</u>   |   |              |
| Labor . . . . .  | 30 persons                              | 150.00       |
| Power . . . . .  | -                                       | -            |
| Equipment . . . . .  | -                                       | -            |
| Custom or contract work . . . . .  | -                                       | -            |
| Other (specify) _____  | -                                       | -            |
| Subtotal . . . . .   |   | 150.00       |
| <u>Interest on operating capital</u> . . . . .                                   |   | -            |
| <u>Off farm direct costs</u>   |   |              |
| Transportation to gin . . . . .  |   | 10.50        |
| Ginning (including bagging & ties)   |   | 35.50        |
| Other (specify) _____  |   | -            |
| Subtotal . . . . .   |   | 46.00        |
| <u>Total direct costs</u> . . . . .  |   | 657.00       |
| <u>Overhead costs</u>  |   |              |
| Management & administration . . . . .  |   | 57.00        |
| Land cost (typical rental value)   |   | 290.00       |
| Other (specify) _____  |   | -            |
| <u>Total overhead costs</u> . . . . .  |   | 347.00       |
| TOTAL COSTS FOR SEED COTTON . . . . .  |   | 1,004.00     |
| MINUS - value of cottonseed<br>extracted in ginning . . . . .                    |   | 125.00       |
| NET COSTS FOR LINT . . . . .   |   | 879.00       |
| Net costs for lint in US cents per pound   |   | 76.68        |
| Rate of exchange used for converting<br>local currency into US dollars . . . . . | 1 U.S. dollar = 70 Rials                |              |
| <u>Additional remarks:</u>   |   |              |

Country ISRAEL Crop year 1976/77

Yield used (kilos per hectare)  
 - for seed (unginned cotton) 4,200  
 - for cotton lint 1,390

| Item   | Average estimated cost per hectare      |              |
|--|---|--------------|
|  | Quantity used per ha.<br>(specify unit) | Cost in US\$ |
| <u>On farm direct costs</u>  |   |              |
| <u>Preharvesting:</u>  |   |              |
| Labor . . . . .  | 80 hours                                | 150.00       |
| Power . . . . .  | -                                       | -            |
| Equipment . . . . .  | 37 hours                                | 258.26       |
| Seed . . . . .   | 20 kgs.                                 | 10.80        |
| 1/ Fertilizer . . . . .  |   | 82.54        |
| 2/ Herbicides . . . . .  |   | 34.76        |
| 3/ Insecticides & fungicides . . . . .   |   | 121.25       |
| Defoliant & other chemicals . . . . .  | 33 kgs.                                 | 11.72        |
| Irrigation . . . . .   | 5,000 cu. m.                            | 185.00       |
| Custom or contract work . . . . .  | -                                       | -            |
| Other (specify) Plane spraying . . . . .   | 12 times                                | 67.20        |
| insect control-field inspection . . . . .  |   | 4.50         |
| Subtotal . . . . .   |   | 926.03       |
| <u>Harvesting:</u>   |   |              |
| Labor . . . . .  | 20 hours                                | 37.50        |
| Power . . . . .  | -                                       | -            |
| Equipment (cotton pickers (mech.)) . . . . .   | 1.85 hours                              | 199.06       |
| Custom or contract work . . . . .  | -                                       | -            |
| Other (specify) . . . . .  | -                                       | -            |
| Subtotal . . . . .   |   | 236.56       |
| Interest on operating capital 7.75% . . . . .  |   | 100.42       |
| Insurance . . . . .  |   | 15.27        |
| <u>Off farm direct costs</u>   |   |              |
| Transportation to gin (per ton seed cotton) . . . . .  |   | 16.80        |
| Ginning (including bagging & ties) . . . . .   |   | 158.60       |
| Other (specify) . . . . .  |   | -            |
| Subtotal . . . . .   |   | 175.40       |
| Total direct costs . . . . .   |   | 1,453.68     |
| <u>Overhead costs</u>  |   |              |
| Management & administration 8% . . . . .   |   | 63.84        |
| Land cost (typical rental value) . . . . .   |   | 7.00         |
| Other (specify) R and D fund . . . . .   |   | 4.50         |
| Water rights & upkeep - irrigation network . . . . .   |   | 171.60       |
| Cotton Board commission . . . . .  |   | 14.22        |
| Warehouse fund . . . . .   |   | 1.00         |
| Total overhead costs . . . . .   |   | 262.16       |
| TOTAL COSTS FOR SEED COTTON . . . . .  |   | 1,715.84     |
| MINUS - value of cottonseed extracted in ginning . . . . .   |   | 376.00       |
| NET COSTS FOR LINT . . . . .   |   | 1,339.84     |
| Net costs for lint in US cents per pound . . . . .   |   | 43.72        |
| Rate of exchange used for converting local currency into US dollars . . . . .  | 1 U.S. dollar = 10 IL                   |              |
| <u>Additional remarks:</u>   |   |              |
| 1/ Fertilizer: 500 kg superphosphate @ \$76.40/ton, 540 kg. liquid ammonia @ \$55.90, 130 kg. amm. sulphate @ \$91.40, transport (per ton) \$2.50. 2/ Herbicides: cotoran, prometrin or diuron with or without treflan. 3/ 9 - 10 treatments for insects, 2 - 3 for defoliation. |   |              |

Country IVORY COAST Crop year 1976/77

Yield used (kilos per hectare)  
 - for seed (unginned cotton) 1,150  
 - for cotton lint 460

| Item  | Average estimated cost per hectare      |              |
|---|---|--------------|
|   | Quantity used per ha.<br>(specify unit) | Cost in US\$ |
| <u>On farm direct costs</u>   |   |              |
| <u>Preharvesting:</u>   |   |              |
| Labor . . . . .   | 46 man-days                             | 55.20        |
| Power . . . . .   | -                                       | -            |
| Equipment . . . . .   | 1 cultivator + 1 cart                   | 13.60        |
| Seed . . . . .  | 35 kgs                                  | 1.00         |
| Fertilizer . . . . .  | 200 kg NPK + 100 kg                     | 81.00        |
| Herbicides . . . . .  | - sulfate                               | -            |
| Insecticides & fungicides . . . . .   | 18.6 l insecticides                     | 74.00        |
| Defoliant & other chemicals . . . . .   | -                                       | -            |
| Irrigation . . . . .  | -                                       | -            |
| Custom or contract work . . . . .   | -                                       | -            |
| Other (specify) . . . . .   | -                                       | -            |
| Subtotal . . . . .  |   | 224.80       |
| <u>Harvesting:</u>  |   |              |
| Labor . . . . .   | 44 man-days                             | 52.80        |
| Power . . . . .   | -                                       | -            |
| Equipment . . . . .   | -                                       | -            |
| Custom or contract work . . . . .   | -                                       | -            |
| Other (specify) <u>stalk destruction</u>  | 10 man-days                             | 12.00        |
| Subtotal . . . . .  |   | 64.80        |
| <u>Interest on operating capital</u> . . . . .  |   | 5.80         |
| <u>Off farm direct costs</u>  |   |              |
| Transportation to gin . . . . .   |   | 22.90        |
| Ginning (including bagging & ties)  |   | 96.00        |
| Other (specify) <u>Marketing costs</u>  |   | 8.30         |
| Subtotal . . . . .  |   | 127.20       |
| <u>Total direct costs</u> . . . . .   |   | 422.60       |
| <u>Overhead costs</u>   |   |              |
| Management & administration . . . . .   |   | -            |
| Land cost (typical rental value)  |   | -            |
| Other (specify) <u>Staff</u>  |   | 88.00        |
| <u>Total overhead costs</u> . . . . .   |   | 88.00        |
| TOTAL COSTS FOR SEED COTTON . . . . .   |   | 510.60       |
| MINUS - value of cottonseed<br>extracted in ginning . . . . .   |   | 22.40        |
| NET COSTS FOR LINT . . . . .  |   | 488.20       |
| <u>Net costs for lint in US cents per pound</u>   |   | 48.14        |
| Rate of exchange used for converting<br>local currency into US dollars . . . . .  | 1 U.S. dollar = 250 F CFA               |              |
| <u>Additional remarks:</u>  |   |              |
| Data per farm using draft animals (2 oxen + 1 cultivator + 1 cart).<br>Production costs of ginned cotton at CIDT plant. |   |              |

Country KENYA Crop year 1976

Yield used (kilos per hectare)  
 - for seed (unginned cotton) 1,250 kgs.  
 - for cotton lint 412.5 Kgs.

| Item   | Average estimated cost per hectare      |              |
|--|---|--------------|
|  | Quantity used per ha.<br>(specify unit) | Cost in US\$ |
| <u>On farm direct costs</u>  |   |              |
| <u>Preharvesting:</u>  |   |              |
| Labor (planting, weeding & spraying)                                   |   | 63.80        |
| Power (N/A)  |   | -            |
| Equipment  | Spray pump \$79 ÷ 4 seasons             | 20.00        |
| Seed   |   | 29.50        |
| Fertilizer   |   | -            |
| Herbicides   |   | -            |
| Insecticides & fungicides  | DDT/CARBARYL                            | 60.95        |
| Defoliant & other chemicals  |   | -            |
| Irrigation   |   | -            |
| Custom or contract work  | Ploughing & harrowing                   | 54.80        |
| Other (specify)  |   | -            |
| <u>Subtotal</u>  |   | 229.05       |
| <u>Harvesting:</u>   |   |              |
| Labor  |   | 30.00        |
| Power  |   | -            |
| Equipment  |   | 12.00        |
| Custom or contract work  |   | -            |
| Other (specify)  |   | -            |
| <u>Subtotal</u>  |   | 42.00        |
| <u>Interest on operating capital</u>                                   | 10% p.a. for 6 months                   | 13.55        |
| <u>Off farm direct costs</u>   |   |              |
| Transportation to gin  |   | 22.84        |
| Ginning (including bagging & ties)                                     |   | 72.85        |
| Other (specify)  |   | -            |
| <u>Subtotal</u>  |   | 95.69        |
| <u>Total direct costs</u>  |   | 380.29       |
| <u>Overhead costs</u>  |   |              |
| Management & administration  |   | 107.50       |
| Land cost (typical rental value)                                       |   | -            |
| Other (specify) <u>Research</u>  |   | 3.28         |
| <u>Total overhead costs</u>  |   | 110.78       |
| <u>TOTAL COSTS FOR SEED COTTON</u>                                     |   | 491.07       |
| MINUS - value of cottonseed<br>extracted in ginning                    |   | 99.27        |
| <u>NET COSTS FOR LINT</u>  |   | 391.80       |
| <u>Net costs for lint in US cents per pound</u>                        |   | 43.08        |
| Rate of exchange used for converting<br>local currency into US dollars | US \$1 = K. Shs. 8.21                   |              |
| <u>Additional remarks:</u>   |   |              |

The above figures are for raingrown cotton. Fertilizer and irrigation not applied.

Country MEXICO Crop year 1976/77

Yield used (kilos per hectare)  
 - for seed (unginned cotton) 2,875 {Torreon} 1,650 {Chihuahua}  
 - for cotton lint 1,006 {Torreon} 575 {Chihuahua}

| Item   | Average estimated cost per hectare |                                  |
|--|------------------------------------|----------------------------------|
|  | Torreon *                          | Chihuahua 1/                     |
| <u>Cost in US\$</u>  |                                    |                                  |
| <u>On farm direct costs</u>  |                                    |                                  |
| <u>Preharvesting:</u>  |                                    |                                  |
| Labor . . . . .  | 315.42                             | 102.67                           |
| Power . . . . .  | 58.15                              | 69.82                            |
| Equipment . . . . .  | -                                  | 31.20                            |
| Seed . . . . .   | 14.10                              | 8.89                             |
| Fertilizer . . . . .   | 35.55                              | 49.78                            |
| Herbicides . . . . .   | 20.62                              | 5.33                             |
| Insecticides & fungicides . . . . .  | 148.59                             | 84.44                            |
| Defoliant & other chemicals . . . . .  | -                                  | 11.11                            |
| Irrigation . . . . .   | 23.79                              | 35.56                            |
| Custom or contract work . . . . .  | 51.10                              | -                                |
| Other (specify) . . . . .  | 72.42                              | -                                |
| Subtotal . . . . .   | 739.74                             | 398.80                           |
| <u>Harvesting:</u>   |                                    |                                  |
| Labor . . . . .  | -                                  | 71.11                            |
| Power . . . . .  | -                                  | 1.78                             |
| Equipment . . . . .  | 2.86                               | 1.78                             |
| Custom or contract work . . . . .  | 130.84                             | -                                |
| Other (specify) . . . . .  | 32.82                              | -                                |
| <u>Phytosanitary control</u>   | 25.55                              | -                                |
| Subtotal . . . . .   | 192.07                             | 74.67                            |
| <u>Interest on operating capital</u> . . . . .                                   | 73.44                              | 85.20                            |
| <u>Off farm direct costs</u>   |                                    |                                  |
| Transportation to gin . . . . .  | 10.13                              | 8.89                             |
| Ginning (including bagging & ties)   | 88.66                              | 81.02                            |
| Other (specify) . . . . .  | -                                  | -                                |
| <u>Penalties and taxes</u>   | 66.99                              | 27.29                            |
| Subtotal . . . . .   | 165.78                             | 117.20                           |
| <u>Total direct costs</u> . . . . .  | 1,171.03                           | 675.87                           |
| <u>Overhead costs</u>  |                                    |                                  |
| Management & administration . . . . .  | -                                  | 48.23                            |
| Land cost (typical rental value)   | -                                  | 133.33                           |
| Other (specify) . . . . .  | -                                  | -                                |
| Subtotal . . . . .   | -                                  | 181.56                           |
| <u>TOTAL COSTS FOR SEED COTTON</u> . . . . .                                     | 1,171.03                           | 857.43                           |
| MINUS - value of cottonseed<br>extracted in ginning . . . . .                    | 223.57                             | 129.64                           |
| <u>NET COSTS FOR LINT</u> . . . . .  | 947.46                             | 727.79                           |
| <u>Net costs for lint in US cents per pound</u>                                  | 42.72                              | 57.41                            |
| Rate of exchange used for converting<br>local currency into US dollars . . . . . | 22.70 (pesos) =<br>1.00 (dollar)   | 22.50 (pesos) =<br>1.00 (dollar) |

\* Lake Region

Country MEXICO Crop year 1976/77

Yield used (kilos per hectare)  
 - for seed (unginned cotton) 2,376 (Mexicali, B.C.) 1,500 (Costa de)  
 - for cotton lint                       540 (Chiapas )

| Item   | Average estimated cost per hectare |                                  |
|--|------------------------------------|----------------------------------|
|  | Mexicali, B.C.                     | Costa de Chiapas 1/              |
| <u>On farm direct costs</u>  | <u>Cost in US\$</u>                |                                  |
| <u>Preharvesting:</u>  |                                    |                                  |
| Labor . . . . .  | 88.10                              | 44.66                            |
| Power . . . . .  | } 74.67                            | 76.66                            |
| Equipment . . . . .  |                                    | 38.66                            |
| Seed . . . . .   | 22.90                              | 7.77                             |
| Fertilizer . . . . .   | 43.30                              | 43.15                            |
| Herbicides . . . . .   | 35.50                              | 5.33                             |
| Insecticides & fungicides . . . . .  | 174.00                             | 170.22                           |
| Defoliant & other chemicals . . . . .  | 29.51                              | 11.11                            |
| Irrigation . . . . .   | 37.44                              | 7.11                             |
| Custom or contract work . . . . .  | -                                  | -                                |
| Other (specify) <u>                  </u>  | -                                  | -                                |
| Subtotal . . . . .   | 505.42                             | 404.67                           |
| <u>Harvesting:</u>   |                                    |                                  |
| Labor . . . . .  | 191.01                             | 68.22                            |
| Power . . . . .  | -                                  | 1.33                             |
| Equipment . . . . .  | -                                  | 4.00                             |
| Custom or contract work . . . . .  | -                                  | -                                |
| Other (specify) <u>                  </u>  | -                                  | -                                |
| Subtotal . . . . .   | 191.01                             | 73.55                            |
| <u>Interest on operating capital</u> . . . . .                                   | -                                  | -                                |
| <u>Off farm direct costs</u>   |                                    |                                  |
| Transportation to gin . . . . .  | 16.24                              | 10.88                            |
| Ginning (including bagging & ties) . . . . .                                     | 115.55                             | 62.22                            |
| Other (specify) <u>Taxes and Penalties</u>                                       | -                                  | 27.29                            |
| Subtotal . . . . .   | 131.79                             | 100.39                           |
| <u>Total direct costs</u> . . . . .  | -                                  | -                                |
| <u>Overhead costs</u>  |                                    |                                  |
| Management & administration . . . . .  | -                                  | 56.71                            |
| Land cost (typical rental value) . . . . .                                       | -                                  | 88.88                            |
| Other (specify) <u>Fiscal &amp; farm taxes</u>                                   |                                    |                                  |
| <u>Insurance, technical &amp; entomological</u><br>services . . . . .            | 98.32                              | -                                |
| Total overhead costs . . . . .   | -                                  | 145.59                           |
| TOTAL COSTS FOR SEED COTTON . . . . .  | 926.54                             | 724.20                           |
| MINUS - value of cottonseed<br>extracted in ginning . . . . .                    | 191.25                             | 119.15                           |
| NET COSTS FOR LINT . . . . .   | 735.29                             | 605.05                           |
| <u>Net costs for lint in US cents per pound</u>                                  | 63.00                              | 50.33                            |
| Rate of exchange used for converting<br>local currency into US dollars . . . . . | 22.70 (pesos) =<br>1.00 (dollar)   | 22.50 (pesos) =<br>1.00 (dollar) |

Additional remarks: 1/ These costs are calculated for pump irrigated acreage; for gravity irrigated \$23.00 are subtracted; 1 and 2.5 bales per hectare were estimated as an average of production for both systems.

|                                |              |
|--------------------------------|--------------|
| Yield used (kilos per hectare) |              |
| - for seed (unginned cotton)   | <u>1,157</u> |
| - for cotton lint              | <u>352</u>   |

| Item                              | Average estimated cost per ha. |
|-----------------------------------|--------------------------------|
|                                   | <u>Cost in US\$</u>            |
| <u>On farm direct costs</u>       |                                |
| <u>Preharvesting</u>              |                                |
| 1. <u>Custom work:</u>            |                                |
| - Tillage . . . . .               | 10.00                          |
| - 2 disc harrowing . . . . .      | 11.11                          |
| - 1 ridging . . . . .             | 6.66                           |
| - digging irrigation channels . . | 2.23                           |
| 2. <u>Fertilization:</u>          |                                |
| - basal dressing . . . . .        | 16.17                          |
| - top dressing . . . . .          | 19.89                          |
| 3. <u>Sowing</u>                  | 13.34                          |
| 4. <u>Cultivation:</u>            |                                |
| - 1st hoeing + weeding (12 days)  | 16.00                          |
| - thinning . . . . .              | 4.00                           |
| - 2nd hoeing + weeding (3 days)   | 16.00                          |
| - ridging . . . . .               | 2.28                           |
| - irrigation (8) . . . . .        | 17.78                          |
| 5. <u>Inputs:</u>                 |                                |
| - seed . . . . .                  | 5.56                           |
| - irrigation water . . . . .      | 37.78                          |
| - insect and pest control . . . . | 96.12                          |
| Subtotal (1) . . . . .            | 274.92                         |
| 6. <u>Picking</u> . . . . .       | 44.45                          |
| - stalk destruction & burning . . | 22.23                          |
| Subtotal (2) . . . . .            | 66.68                          |
| Interest on capital . .           | 20.00                          |

Continued . . . .

## MOROCCO (continued)

| Item                                      | Average estimated cost per ha. |
|---|--------------------------------|
| <u>Off farm direct costs</u>              | <u>Cost in US\$</u>            |
| <u>Ginning</u>                            |                                |
| - transport to plant by farmer. . . . .   | 22.23                          |
| - miscellaneous . . . . .                 | 25.17                          |
| - maintenance and repair . . . . .        | 1.87                           |
| - labour . . . . .                        | 38.98                          |
| - transport by COMAPRA . . . . .          | 9.45                           |
| Subtotal (4) . . . . .                    | 97.70                          |
| A. TOTAL DIRECT COSTS (1 + 2 + 3 + 4)     | 459.30                         |
| <u>OVERHEAD COSTS</u>                     |                                |
| <u>Management and administration</u>      |                                |
| - personnel . . . . .                     | 25.99                          |
| - management . . . . .                    | 9.90                           |
| - land rental . . . . .                   | 88.89                          |
| Subtotal (5) . . . . .                    | 124.78                         |
| - finance costs . . . . .                 | 15.88                          |
| - taxes . . . . .                         | 4.89                           |
| - amortisation of plants . . . . .        | 1.78                           |
| Subtotal (6) . . . . .                    | 22.55                          |
| B. TOTAL OVERHEAD COSTS (5 + 6) . . . . . | 147.33                         |
| TOTAL COSTS SEED COTTON PER HA. (A + B)   | 606.63                         |
| Less value of cottonseed . . . . .        | 83.03                          |
| NET COSTS LINT PER HA. . . . .            | 523.60                         |
| NET COSTS LINT IN US CENTS PER POUND      | 67.47                          |

Rate of exchange: 1 U.S. dollar = 4.5 Dirhams



Country MOZAMBIQUE Crop year 1976/77

Yield used (kilos per hectare)  
 - for seed (unginned cotton) 1,500  
 - for cotton lint 514.5

| Item   | Average estimated cost per hectare      |              |
|--|---|--------------|
|  | Quantity used per ha.<br>(specify unit) | Cost in US\$ |
| <u>On farm direct costs</u>  |   |              |
| <u>Preharvesting:</u>  |   |              |
| Labor . . . . .  | 26 man-days                             | 47.489       |
| Power . . . . .  | 12 hours                                | 72.413       |
| Equipment . . . . .  | 12 hours                                | 6.075        |
| Seed . . . . .   | 20 kg.                                  | 2.801        |
| Fertilizer . . . . .   | -                                       | -            |
| Herbicides . . . . .   | -                                       | -            |
| Insecticides & fungicides . . . . .  | 22 ltrs                                 | 50.804       |
| Defoliant & other chemicals . . . . .  | -                                       | -            |
| Irrigation . . . . .   | -                                       | -            |
| Custom or contract work . . . . .  | -                                       | -            |
| Other (specify) <u>Atomizer</u>  | 32 hours                                | 19.482       |
| Subtotal . . . . .   |   | 199.064      |
| <u>Harvesting:</u>   |   |              |
| Labor . . . . .  | 52 man-days                             | 94.977       |
| Power . . . . .  | 2 hours                                 | 12.069       |
| Equipment . . . . .  | 2 hours                                 | 1.545        |
| Custom or contract work . . . . .  | -                                       | -            |
| Other (specify) . . . . .  | -                                       | -            |
| Subtotal . . . . .   |   | 108.591      |
| <u>Interest on operating capital</u> . . . . .                                   |   | -            |
| <u>Off farm direct costs</u>   |   |              |
| Transportation to gin . . . . .  |   | 21.918       |
| Ginning (including bagging & ties)   |   | 43.854       |
| Other (specify) . . . . .  |   | -            |
| Subtotal . . . . .   |   | 65.772       |
| <u>Total direct costs</u> . . . . .  |   | 373.427      |
| <u>Overhead costs <sup>1/</sup></u>  |   |              |
| Management & administration . . . . .  |   |              |
| Land cost (typical rental value)   |   | 74.685       |
| Other (specify) . . . . .  |   |              |
| <u>Total overhead costs</u> . . . . .  |   | 74.685       |
| TOTAL COSTS FOR SEED COTTON . . . . .  |   | 448.112      |
| MINUS - value of cottonseed<br>extracted in ginning . . . . .                    |   | 89.132       |
| NET COSTS FOR LINT . . . . .   |   | 358.980      |
| Net costs for lint in US cents per pound   |   | 31.65        |
| Rate of exchange used for converting<br>local currency into US dollars . . . . . | 1 U.S. dollar = 32.85 Cudos             |              |
| <u>Additional remarks:</u>   |   |              |
| Percentage of cottonseed 64; percentage of lint 34.3.                            |   |              |
| <sup>1/</sup> 20 percent of total direct costs.                                  |   |              |

Country NICARAGUA Crop year 1976/77

Yield used (kilos per hectare)  
 - for seed (unginned cotton) 1,972  
 - for cotton lint 651

| Item   | Average estimated cost per hectare      |              |
|--|---|--------------|
|  | Quantity used per ha.<br>(specify unit) | Cost in US\$ |
| <u>On farm direct costs</u>  |   |              |
| <u>Preharvesting:</u>  |   |              |
| Labor . . . . .  |   | 99.25        |
| Power . . . . .  |   | 64.10        |
| Equipment . . . . .  |   | 9.72         |
| Seed . . . . .   |   | 114.99       |
| Fertilizer . . . . .   |   | 10.50        |
| Herbicides . . . . .   |   | 179.35       |
| Insecticides & fungicides . . . . .  |   | -            |
| Defoliant & other chemicals . . . . .  |   | -            |
| Irrigation . . . . .   |   | 12.18        |
| Custom or contract work . . . . .  |   |              |
| Other (specify) <u>Application of</u>  |   |              |
| <u>insecticides and other costs</u>  |   | 50.31        |
| Subtotal . . . . .   |   | 540.40       |
| <u>Harvesting:</u>   |   |              |
| Labor . . . . .  |   | 90.20        |
| Power . . . . .  |   | -            |
| Equipment . . . . .  |   | -            |
| Custom or contract work . . . . .  |   | -            |
| Other (specify) _____  |   |              |
| Subtotal . . . . .   |   | 90.20        |
| <u>Interest on operating capital</u> . . . . .                                   |   | 40.06        |
| <u>Off farm direct costs</u>   |   |              |
| Transportation to gin . . . . .  |   | 6.77         |
| Ginning (including bagging & ties)   |   | 31.61        |
| Other (specify) <u>Penalty, transport</u>  |   |              |
| <u>to port, loading and classification</u>                                       |   | 17.32        |
| Subtotal . . . . .   |   | 55.70        |
| <u>Total direct costs</u> . . . . .  |   | 726.36       |
| <u>Overhead costs</u>  |   |              |
| Management & administration . . . . .  |   | 22.05        |
| Land cost (typical rental value)   |   | 103.69       |
| Other (specify) _____  |   | 9.10         |
| <u>Total overhead costs</u> . . . . .  |   | 134.84       |
| TOTAL COSTS FOR SEED COTTON . . . . .  |   | 861.20       |
| MINUS - value of cottonseed<br>extracted in ginning . . . . .                    |   | 127.15       |
| NET COSTS FOR LINT . . . . .   |   | 734.05       |
| <u>Net costs for lint in US cents per pound</u>                                  |   | 51.15        |
| Rate of exchange used for converting<br>local currency into US dollars . . . . . | US\$ 1 = 7.00 córdobas                  |              |
| <u>Additional remarks:</u>   |   |              |

Country NIGERIA Crop year 1976/77

Yield used (kilos per hectare)  
 - for seed (unginned cotton) 663 (National) 337 (Traditional) 989 (Advanced)  
 - for cotton lint 221 (Average) 112 (Farmer) 330 (Farmer)

| Item  | Estimated cost of producing 1 ha. of cotton |   |        |
|---|---|---|--------|
|   | National Average                            | In major producing - zones<br>Traditional Farmer 1/<br>Advanced Farmer 2/<br>Cost in US\$ |        |
| <u>On farm direct costs</u>                                       |   |   |        |
| <u>Preharvesting:</u>   |   |   |        |
| Labor . . . . .   | 101.79                                      | 81.90   | 121.68 |
| Power . . . . .   | 7.71  | -   | 15.41  |
| Equipment . . . . .   |   | -   | -      |
| Seed . . . . .  | 2.94  | 2.94  | 2.94   |
| Fertilizer . . . . .  | 35.17                                       | -   | 70.33  |
| Herbicides . . . . .  | -   | -   | -      |
| Insecticides & fungicides . . . . .                               | 21.45                                       | -   | 42.90  |
| Defoliant & other chemicals . . . . .                             | -   | -   | -      |
| Irrigation . . . . .  | -   | -   | -      |
| Custom or contract work . . . . .                                 | -   | -   | -      |
| Other (specify) _____   | -   | -   | -      |
| Subtotal . . . . .  | 169.05                                      | 84.84   | 253.26 |
| <u>Harvesting:</u>  |   |   |        |
| Labor . . . . .   | 45.49                                       | 23.12   | 67.85  |
| Power . . . . .   | -   | -   | -      |
| Equipment . . . . .   | -   | -   | -      |
| Custom or contract work . . . . .                                 | -   | -   | -      |
| Other (specify) <u>Uprooting</u>                                  | 23.12                                       | 23.12   | 23.12  |
| Subtotal . . . . .  | 68.61                                       | 46.24   | 90.97  |
| <u>Interest on operating capital</u> . . . . .                    | 14.48                                       | 7.36  | 21.60  |
| <u>Off farm direct costs</u>                                      |   |   |        |
| Transportation to gin . . . . .                                   | 43.66                                       | 25.64   | 61.67  |
| Ginning (including bagging & ties)                                | 60.61                                       | 30.81   | 90.41  |
| Other (specify) <u>seed dressing,</u>                             | 14.25                                       | 7.24  | 21.26  |
| <u>inspection, storage, handling</u>                              |   |   |        |
| Subtotal . . . . .  | 118.52                                      | 63.69   | 173.34 |
| <u>Total direct costs</u> . . . . .                               | 370.65                                      | 202.13  | 539.17 |
| <u>Overhead costs</u>   |   |   |        |
| Management & administration . . . . .                             | 48.17                                       | 24.48   | 71.85  |
| Land cost (typical rental value)                                  | -   | -   | -      |
| Other (specify) _____   | -   | -   | -      |
| <u>Total overhead costs</u> . . . . .                             | 48.17                                       | 24.48   | 71.85  |
| <u>TOTAL COSTS FOR SEED COTTON</u> . . . . .                      | 418.82                                      | 226.61  | 611.02 |
| <u>MINUS - value of cottonseed extracted in ginning</u> . . . . . | 28.96                                       | 14.72   | 43.20  |
| <u>NET COSTS FOR LINT</u> . . . . .                               | 389.86                                      | 211.89  | 567.82 |
| <u>Net costs for lint in US cents per pound</u>                   | 80.00                                       | 85.82   | 78.05  |

Rate of exchange used for converting local currency into US dollars . . . . . N 1.00 = US\$ 1.56

Additional remarks: 1/ A farmer who does not adopt modern techniques of cotton production such as early sowing, fertilizer application, sufficient pest control measures etc. 2/ A farmer who adopts (partially or fully) all the recommendations on modern techniques of cotton production.

Country PAKISTAN Crop year 1976/77

Yield used (kilos per hectare)  
 - for seed (unginned cotton) 968  
 - for cotton lint 323

| Item   | Average estimated cost per hectare      |              |
|--|---|--------------|
|  | Quantity used per ha.<br>(specify unit) | Cost in US\$ |
| <u>On farm direct costs</u>  |   |              |
| <u>Preharvesting:</u>  |   |              |
| Labor . . . . .  | 42 man-days                             | 33.93        |
| Power . . . . .  |   | 49.89        |
| Equipment . . . . .  |   | 4.24         |
| Seed . . . . .   | 23 kgs.                                 | 26.19        |
| Fertilizer (Urea & D.A.P.) . . . . .   | 2.47-1.24 bags                          |              |
| Herbicides . . . . .   |   |              |
| Insecticides & fungicides . . . . .  | 7.50 sprays                             | 11.60        |
| Defoliant & other chemicals . . . . .  |   |              |
| Irrigation . . . . .   | 17.29                                   | 5.00         |
| Custom or contract work . . . . .  |   | -            |
| Other (specify) _____  |   |              |
| Subtotal . . . . .   |   | 130.85       |
| <u>Harvesting:</u>   |   |              |
| Labor . . . . .  | 32 man-days                             | 27.19        |
| Power . . . . .  |   | -            |
| Equipment . . . . .  |   | -            |
| Custom or contract work . . . . .  |   | -            |
| Other (specify) _____  |   |              |
| Subtotal . . . . .   |   | 27.19        |
| <u>Interest on operating capital</u> . . . . .                                   |   | 16.15        |
| <u>Off farm direct costs</u>   |   |              |
| Transportation to gin . . . . .  |   | 6.24         |
| Ginning (including bagging & ties)   |   | 19.96        |
| Other (specify) _____  |   |              |
| Subtotal . . . . .   |   | 26.20        |
| <u>Total direct costs</u> . . . . .  |   | 200.39       |
| <u>Overhead costs</u>  |   |              |
| Management & administration . . . . .  |   | 14.97        |
| Land cost (typical rental value)   |   | 93.55        |
| Other (specify) _____  |   |              |
| <u>Total overhead costs</u> . . . . .  |   | 108.52       |
| <u>TOTAL COSTS FOR SEED COTTON</u> . . . . .                                     |   | 308.91       |
| MINUS - value of cottonseed<br>extracted in ginning . . . . .                    |   | 87.31        |
| <u>NET COSTS FOR LINT</u> . . . . .  |   | 221.60       |
| <u>Net costs for lint in US cents per pound</u>                                  |   | 31.12        |
| Rate of exchange used for converting<br>local currency into US dollars . . . . . | US\$ 1 = 9.90 Rs.                       |              |
| <u>Additional remarks:</u>   |   |              |

Country PARAGUAY Crop year 1976/77

Yield used (kilos per hectare)  
 - for seed (unginned cotton) 1,600  
 - for cotton lint

| Item   | Average estimated cost per hectare      |                           |
|--|---|---------------------------|
|  | Quantity used per ha.<br>(specify unit) | Cost in US\$              |
| <u>On farm direct costs</u>  |   |                           |
| <u>Preharvesting:</u>  |   |                           |
| Labor . . . . .  |   | 78.46                     |
| Power . . . . .  |   | 9.23                      |
| Equipment . . . . .  |   | 1.15                      |
| Seed . . . . .   |   | 6.55                      |
| Fertilizer . . . . .   |   | -                         |
| Herbicides . . . . .   |   | -                         |
| Insecticides & fungicides . . . . .  |   | 30.38                     |
| Defoliant & other chemicals . . . . .  |   | -                         |
| Irrigation . . . . .   |   | -                         |
| Custom or contract work 1/. . . . .  |   | 9.23                      |
| Other (specify) _____  |   |                           |
| Subtotal . . . . .   |   | 135.00                    |
| <u>Harvesting:</u>   |   |                           |
| Labor . . . . .  |   | 123.00                    |
| Power . . . . .  |   | -                         |
| Equipment . . . . .  |   | -                         |
| Custom or contract work . . . . .  |   | -                         |
| Other (specify) _____  |   |                           |
| Subtotal . . . . .   |   | 123.00                    |
| Interest on operating capital 10%. . . . .                                       |   | 25.80                     |
| <u>Off farm direct costs</u>   |   |                           |
| Transportation to gin . . . . .  |   | 11.54                     |
| Ginning (including bagging & ties)   |   | -                         |
| Other (specify) _____  |   |                           |
| Subtotal . . . . .   |   | 11.54                     |
| <u>Total direct costs</u> . . . . .  |   | 295.34                    |
| <u>Overhead costs</u>  |   |                           |
| Management & administration . . . . .  |   | -                         |
| Land cost (typical rental value)   |   | -                         |
| Other (specify) _____  |   |                           |
| <u>Total overhead costs</u> . . . . .  |   | -                         |
| TOTAL COSTS FOR SEED COTTON . . . . .  |   | 295.34                    |
| MINUS - value of cottonseed<br>extracted in ginning . . . . .                    |   | -                         |
| NET COSTS FOR LINT . . . . .   |   | -                         |
| <u>Net costs for lint in US cents per pound</u>                                  |   | -                         |
| Rate of exchange used for converting<br>local currency into US dollars . . . . . |   | 1 US\$ = 130.00 Guaranies |
| <u>Additional remarks:</u>   |   |                           |
| 1/ Stalk destruction.  |   |                           |

Country SOUTH AFRICA Crop year 1976

Yield used (kilos per hectare)

- for seed (unginned cotton) 2,870

- for cotton lint

Vaalhartz irrigation scheme

| Item   | Average estimated cost per hectare      |              |
|--|---|--------------|
|  | Quantity used per ha.<br>(specify unit) | Cost in US\$ |
| <u>On farm direct costs</u>  |   |              |
| <u>Preharvesting:</u>  |   |              |
| Labor . . . . .  | 253.21 man hours                        | 37.20        |
| Power (average of 43.7 kw tractor)   | 28.92 hours                             | 90.94        |
| Equipment . . . . .  | 28.92 hours                             | 13.86        |
| Seed . . . . .   | 34 kg.                                  | 14.04        |
| Fertilizer . . . . .   | 800 kg.                                 | 70.62        |
| Herbicides . . . . .   | 1 l.conc                                | 11.80        |
| Insecticides & fungicides . . . .  | 15.4 l. conc                            | 49.75        |
| Defoliants & other chemicals . . .   | 1.9 l. conc                             | 8.04         |
| Irrigation . . . . .   | 428 mm                                  | 12.41        |
| Custom or contract work . . . . .  | -                                       | -            |
| Other (specify) _____  | -                                       | -            |
| Subtotal . . . . .   |   | 308.66       |
| <u>Harvesting:</u>   |   |              |
| Labor . . . . .  |   | -            |
| Power . . . . .  |   | -            |
| Equipment . . . . .  |   | -            |
| Custom or contract work . . . . .  |   | 137.65       |
| Other (specify) _____  |   | -            |
| Subtotal . . . . .   |   | 137.65       |
| <u>Interest on operating capital</u> . . . .                                 |   | -            |
| <u>Off farm direct costs</u>   |   |              |
| Transportation to gin . . . . .  |   | -            |
| Ginning (including bagging & ties)   |   | -            |
| Other (specify) <u>Levy by ginneries</u>                                     |   | 14.82        |
| Subtotal . . . . .   |   | 14.82        |
| <u>Total direct costs</u> . . . . .  |   | 461.13       |
| <u>Overhead costs</u>  |   |              |
| Land cost . . . . .  |   | 127.86       |
| Fixed improvements, vehicles and<br>administrative costs . . . . .           |   | 21.53        |
| Insurance . . . . .  |   | 196.15       |
| <u>Total overhead costs</u> . . . . .  |   | 345.54       |
| TOTAL COSTS FOR SEED COTTON . . . . .  |   | 806.67       |
| MINUS - value of cottonseed<br>extracted in ginning . . . . .                |   | -            |
| NET COSTS FOR LINT . . . . .   |   | -            |
| <u>Net costs for lint in US cents per pound</u>                              |   | -            |
| Rate of exchange used for converting<br>local currency into US dollars . . . | 1.1471 U.S. dollars = 1 Rand            |              |

Additional remarks:

No costs are included for management or interest on operating capital.  
This Division does not have any information available on the value of  
extracted cottonseed.

Country SOUTH AFRICA Crop year 1976

Yield used (kilos per hectare)  
 - for seed (unginned cotton) 2,224  
 - for cotton lint \_\_\_\_\_

Loskop irrigation scheme

| Item  | Average estimated cost per hectare      |              |
|---|---|--------------|
|   | Quantity used per ha.<br>(specify unit) | Cost in US\$ |
| <u>On farm direct costs</u>   |   |              |
| <u>Preharvesting:</u>   |   |              |
| Labor . . . . .   | 223.59 man hours                        | 33.86        |
| Power (48 k.w. tractor) . . . . .   | 26.87                                   | 96.31        |
| Equipment . . . . .   | 26.87 hours                             | 7.30         |
| Seed . . . . .  | 38 kg.                                  | 13.51        |
| Fertilizer . . . . .  | 848 kg.                                 | 88.92        |
| Herbicides . . . . .  | 3.3 l. conc                             | 28.70        |
| Insecticides & fungicides . . . . .   | 20.25 l. conc                           | 94.08        |
| Defoliant & other chemicals . . . . .   | 3 l. conc                               | 6.00         |
| Irrigation 1/ . . . . .   | -                                       | -            |
| Custom or contract work . . . . .   | -                                       | 36.94        |
| Other (specify) _____   | -                                       | -            |
| Subtotal . . . . .  |   | 405.62       |
| <u>Harvesting:</u>  |   |              |
| Labor . . . . .   | 492.78 man hours                        | 58.90        |
| Power . . . . .   | -                                       | -            |
| Equipment . . . . .   | -                                       | -            |
| Custom or contract work . . . . .   | -                                       | 95.25        |
| Other (specify) _____   | -                                       | -            |
| Subtotal . . . . .  |   | 154.15       |
| Interest on operating capital . . . . .   |   | -            |
| <u>Off farm direct costs</u>  |   |              |
| Transportation to gin . . . . .   |   | -            |
| Ginning (including bagging & ties) . . . . .  |   | -            |
| Other (specify) <u>levy by ginneries</u> . . . . .                                  |   | 14.82        |
| Subtotal . . . . .  |   | 14.82        |
| Total direct costs . . . . .  |   | 574.59       |
| <u>Overhead costs</u>   |   |              |
| Land cost . . . . .   |   | 128.00       |
| Fixed improvements, vehicles, adm.<br>and irrigation costs, and insurance . . . . . |   | 187.61       |
| Electricity . . . . .   |   | 28.45        |
| Total overhead costs . . . . .  |   | 344.06       |
| TOTAL COSTS FOR SEED COTTON . . . . .   |   | 918.65       |
| MINUS - value of cottonseed<br>extracted in ginning . . . . .                       |   | -            |
| NET COSTS FOR LINT . . . . .  |   | -            |
| Net costs for lint in US cents per pound  |   | -            |
| Rate of exchange used for converting<br>local currency into US dollars . . . . .    | 1.1471 U.S. dollars = 1 Rand            |              |

1/ Included in overhead costs.

Country SPAIN Crop year 1976

Yield used (kilos per hectare)  
 - for seed (unginned cotton) 3,000  
 - for cotton lint 1,000

| Item  | Average estimated cost per hectare 1/   |              |
|---|---|--------------|
|   | Quantity used per ha.<br>(specify unit) | Cost in US\$ |
| <u>On farm direct costs</u>                                   |   |              |
| <u>Preharvesting:</u>   |   |              |
| Labor . . . . .   | 110 hours                               | 159.00       |
| Power . . . . .   | } various                               | 66.00        |
| Equipment . . . . .   |   |              |
| Seed . . . . .  | 80 kgs.                                 | 35.00        |
| Fertilizer . . . . .  | 900 kgs. of various                     | 147.00       |
| Herbicides . . . . .  | 1.7 lts.                                | 24.00        |
| Insecticides & fungicides . . . . .                           | 8 treatments                            | 145.00       |
| Defoliant & other chemicals . . . . .                         |   | -            |
| Irrigation . . . . .  | 7 irrigations                           | 29.00        |
| Custom or contract work . . . . .                             | 150 hrs of irrigation and various       | 217.00       |
| Other (specify) _____   |   |              |
| Subtotal . . . . .  |   | 822.00       |
| <u>Harvesting:</u>  |   |              |
| Labor . . . . .   | contracted                              | 474.00       |
| Power . . . . .   |   | -            |
| Equipment . . . . .   |   | -            |
| Custom or contract work . . . . .                             |   | -            |
| Other (specify) _____   |   |              |
| Subtotal . . . . .  |   | 474.00       |
| Interest on operating capital . . . . .                       |   | 29.00        |
| <u>Off farm direct costs</u>                                  |   |              |
| Transportation to gin . . . . .                               |   | 17.00        |
| Ginning (including bagging & ties)                            |   | 87.00        |
| Other (specify) _____   |   |              |
| Subtotal . . . . .  |   | 104.00       |
| Total direct costs . . . . .                                  |   | 1,429.00     |
| <u>Overhead costs</u>   |   |              |
| Management & administration . . . . .                         |   | 87.00        |
| Land cost (typical rental value)                              |   | 232.00       |
| Other (specify) _____   |   |              |
| Total overhead costs . . . . .                                |   | 319.00       |
| TOTAL COSTS FOR SEED COTTON . . . . .                         |   | 1,748.00     |
| MINUS - value of cottonseed<br>extracted in ginning . . . . . |   | 290.00       |
| NET COSTS FOR LINT . . . . .                                  |   | 1,458.00     |
| Net costs for lint in US cents per pound                      |   | 66.13        |

Rate of exchange used for converting  
 local currency into US dollars . . . . . 1\$ = 69 ptas.

Additional remarks:

1/ Andaluca.



Country SYRIA Crop year 1976/77

Yield used (kilos per hectare)  
 - for seed (unginned cotton) 2,500  
 - for cotton lint 950

| Item   | Average estimated cost per hectare      |              |
|--|---|--------------|
|  | Quantity used per ha.<br>(specify unit) | Cost in US\$ |
| <u>On farm direct costs</u>  |   |              |
| <u>Preharvesting:</u>  |   |              |
| Labor . . . . .  |   | 176.92       |
| Power . . . . .  | 100 kgs/ha.                             | 193.59       |
| Equipment . . . . .  |   |              |
| Seed . . . . .   |   | 15.38        |
| Fertilizer 1/. . . . .   |   | 95.64        |
| Herbicides . . . . .   | }                                       | 38.46        |
| Insecticides & fungicides . . . . .  |   |              |
| Defoliant & other chemicals . . . . .  |   | -            |
| Irrigation . . . . .   |   | 115.38       |
| Custom or contract work . . . . .  |   | -            |
| Other (specify) <u>Sacks &amp; cords</u>   | abt. 20 sacks/ha.                       | 41.04        |
| <u>Miscellaneous</u>   |   | 6.41         |
| Subtotal . . . . .   |   | 682.81       |
| <u>Harvesting:</u>   |   |              |
| Labor . . . . .  |   | 128.21       |
| Power . . . . .  |   | -            |
| Equipment . . . . .  |   | -            |
| Custom or contract work . . . . .  |   | -            |
| Other (specify) _____  |   | -            |
| <u>Warehousing &amp; guarding</u>  |   | 10.26        |
| Subtotal . . . . .   |   | 138.47       |
| <u>Interest on operating capital</u> . . . . .                                   |   | 50.00        |
| <u>Off farm direct costs</u>   |   |              |
| Transportation to gin . . . . .  |   | 32.05        |
| Ginning (including bagging & ties)   |   | 76.92        |
| Other (specify) _____  |   | -            |
| Subtotal . . . . .   |   | 108.97       |
| <u>Total direct costs</u> . . . . .  |   | 980.25       |
| <u>Overhead costs</u>  |   |              |
| Management & administration . . . . .  |   | -            |
| Land cost (typical rental value)   |   | 198.72       |
| Other (specify) _____  |   | -            |
| <u>Total overhead costs</u> . . . . .  |   | 198.72       |
| TOTAL COSTS FOR SEED COTTON . . . . .  |   | 1,178.97     |
| MINUS - value of cottonseed<br>extracted in ginning . . . . .                    |   | 119.23       |
| NET COSTS FOR LINT . . . . .   |   | 1,059.74     |
| Net costs for lint in US cents per pound   |   | 50.60        |
| Rate of exchange used for converting<br>local currency into US dollars . . . . . | US\$ 1 = 3.90 Syrian pounds             |              |

Additional remarks: 1/ 880 kgs. of Calnitro & Mono-superphosphate per hectare.  
 The above costs are for about 60 - 75% of total cotton area in Syria.  
 Through subsidies, the state contributes to the reduction of prices of some production inputs: seeds, fertilizers, pesticides and sacks for seed-cotton.  
 Lower costs for some items this season as compared with those of last season are attributable to higher exchange rate for US\$ against the Syrian pound.

Country TANZANIA Crop year 1976/77

Yield used (kilos per hectare)  
 - for seed (unginned cotton) 420  
 - for cotton lint 145

| Item  | Average estimated cost per hectare      |              |
|---|---|--------------|
|   | Quantity used per ha.<br>(specify unit) | Cost in US\$ |
| <u>On farm direct costs</u>   |   |              |
| <u>Preharvesting:</u>   |   |              |
| Labor 1/ . . . . .  | 95 man-days                             | 57.2         |
| Power . . . . .   | -                                       | -            |
| Equipment . . . . .   | -                                       | -            |
| Seed 2/ . . . . .   | 84 kg./ha.                              | -            |
| Fertilizer 3/ . . . . .   | 125 kg.SA - 50 kg.TSP                   | 2.5          |
| Herbicides 4/ . . . . .   | -                                       | -            |
| Insecticides & fungicides 5/ . . . . .  | Endosulphan 41/ha.                      | 1.4          |
| Defoliant & other chemicals . . . . .   | -                                       | -            |
| Irrigation . . . . .  | -                                       | -            |
| Custom or contract work . . . . .   | -                                       | -            |
| Other (specify) <u>Spraying pumps</u>   | -                                       | -            |
| <u>batteries bottles</u>  | -                                       | 0.6          |
| Subtotal . . . . .  |   | 61.7         |
| <u>Harvesting:</u>  |   |              |
| Labor 6/ . . . . .  | 80 man-days                             | 48.2         |
| Power . . . . .   | -                                       | -            |
| Equipment . . . . .   | -                                       | -            |
| Custom or contract work . . . . .   | -                                       | -            |
| Other (specify) _____   | -                                       | -            |
| Subtotal . . . . .  |   | 48.2         |
| <u>Interest on operating capital</u> . . . . .  |   | -            |
| <u>Off farm direct costs (180 kg. lint)</u>   |   |              |
| Transportation to gin . . . . .   |   | 3.0          |
| Ginning (including bagging & ties)  |   | 15.8         |
| Other (specify) _____   |   | -            |
| Subtotal . . . . .  |   | 18.8         |
| <u>Total direct costs</u> . . . . .   |   | 128.7        |
| <u>Overhead costs</u>   |   |              |
| Management & administration . . . . .   |   | -            |
| Land cost (typical rental value)  |   | -            |
| Other (specify) _____   |   | -            |
| <u>Total overhead costs</u> . . . . .   |   | -            |
| TOTAL COSTS FOR SEED COTTON . . . . .   |   | 128.7        |
| MINUS - value of cottonseed extracted<br>in ginning - retained by cotton<br>authority . . . . . |   | 33.1         |
| NET COSTS FOR LINT . . . . .  |   | 95.6         |
| Net costs for lint in US cents per pound  |   | 29.9         |

Rate of exchange used for converting

local currency into US dollars . . . . . 1 U.S. dollar 8.3 T. Shs

Additional remarks: 1/ Land preparation, planting, weeding entirely by hand labour. 2/ \$0.12 per kg. - 100% subsidized. 3/ 50% subsidized; input used by 10% of farmers. 4/ Not used. 5/ 75% subsidized; input used by 40% of farmers. 6/ Harvesting, sorting and cleaning and carrying to market. Note: All cotton is grown by smallholders. Average size - 1.25 ha. per family. There is no hiring of labour and therefore no real wages exist on cotton farms. After deduction of the few variable costs the gross margin can be considered as remuneration of family labour. This corresponds on an average farm to Tanzanian shillings 5.0 per man-day or US\$0.60.

Country THAILAND Crop year 1976/77

Yield used (kilos per hectare)  
 - for seed (unginned cotton) 1,250  
 - for cotton lint 416

| Item  | Average estimated cost per hectare 1/      |              |
|---|--|--------------|
|   | Quantity used per ha.<br>(specify unit) 2/ | Cost in US\$ |
| <u>On farm direct costs</u>   |  |              |
| <u>Preharvesting:</u>   |  |              |
| Labor . . . . .   |  | 84.33        |
| Power 3/ . . . . .  |  | 48.51        |
| Equipment . . . . .   |  | 6.67         |
| Seed . . . . .  |  | 2.40         |
| Fertilizer . . . . .  |  | -            |
| Herbicides . . . . .  | }  | 40.83        |
| Insecticides & fungicides . . . . .   |  |              |
| Defoliant & other chemicals . . . . .   | }  | -            |
| Irrigation . . . . .  |  |              |
| Custom or contract work . . . . .   |  | -            |
| Other (specify) <u>Fuel</u> . . . . .   |  | 0.35         |
| <u>Other</u> . . . . .  |  | 5.21         |
| Subtotal . . . . .  |  | 188.30       |
| <u>Harvesting:</u>  |  |              |
| Labor . . . . .   |  | 80.51        |
| Power (including animal) . . . . .  |  | 1.32         |
| Equipment . . . . .   |  | -            |
| Custom or contract work . . . . .   |  | -            |
| Other (specify) _____ . . . . .   |  | -            |
| Subtotal . . . . .  |  | 81.83        |
| <u>Interest on operating capital</u> . . . . .  |  | 41.88        |
| <u>Off farm direct costs</u>  |  |              |
| Transportation to gin . . . . .   |  | 15.28        |
| Ginning (including bagging & ties) . . . . .  |  | 10.19        |
| Other (specify) _____ . . . . .   |  | 15.28        |
| Subtotal . . . . .  |  | 40.75        |
| <u>Total direct costs</u> . . . . .   |  | 352.76       |
| <u>Overhead costs 4/</u>  |  |              |
| Management & administration . . . . .   |  | -            |
| Land cost (typical rental value) . . . . .  |  | 39.96        |
| Other (specify) _____ . . . . .   |  | -            |
| <u>Total overhead costs</u> . . . . .   |  | 39.96        |
| TOTAL COSTS FOR SEED COTTON . . . . .   |  | 392.72       |
| MINUS - value of cottonseed<br>extracted in ginning . . . . .   |  | 91.68        |
| NET COSTS FOR LINT . . . . .  |  | 301.04       |
| <u>Net costs for lint in US cents per pound</u>   |  | 32.83        |
| Rate of exchange used for converting<br>local currency into US dollars . . . . .  | 1 U.S. dollar = 20.45 baht                 |              |
| <u>Additional remarks:</u>  |  |              |
| 1/ National average. 2/ Not available. 3/ Including expenses for animal power.<br>4/ Cost of farm operation only. Note: Net cost for lint is the cost at farm gate. |  |              |

Country TURKEY Crop year 1976/77

Yield used (kilos per hectare)  
 - for seed (unginned cotton) 2,187  
 - for cotton lint 810

| Item   | Average estimated cost per hectare      |              |
|--|---|--------------|
|  | Quantity used per ha.<br>(specify unit) | Cost in US\$ |
| <u>On farm direct costs</u>  |   |              |
| <u>Preharvesting:</u>  |   |              |
| Labor . . . . .  |   | 242.90       |
| Power . . . . .  | )                                       | 57.14        |
| Equipment . . . . .  |   | 19.88        |
| Seed . . . . .   |   | 40.06        |
| Fertilizer . . . . .   |   | -            |
| Herbicides . . . . .   |   | 22.40        |
| Insecticides & fungicides . . . . .  |   | -            |
| Defoliant & other chemicals . . . . .  |   | 30.50        |
| Irrigation . . . . .   |   | -            |
| Custom or contract work . . . . .  |   | 20.00        |
| Other (specify) _____  |   |              |
| Subtotal . . . . .   |   | 432.88       |
| <u>Harvesting:</u>   |   |              |
| Labor . . . . .  |   | 248.57       |
| Power . . . . .  | )                                       | 5.00         |
| Equipment . . . . .  |   | -            |
| Custom or contract work . . . . .  |   | 20.00        |
| Other (specify) _____  |   |              |
| Subtotal . . . . .   |   | 273.57       |
| <u>Interest on operating capital</u> . . . . .                                   |   | 63.58        |
| <u>Off farm direct costs</u>   |   |              |
| Transportation to gin . . . . .  |   | 3.60         |
| Ginning (including bagging & ties)   |   | 66.00        |
| Other (specify) _____  |   | 2.50         |
| Subtotal . . . . .   |   | 72.10        |
| <u>Total direct costs</u> . . . . .  |   | 842.13       |
| <u>Overhead costs</u>  |   |              |
| Management & administration . . . . .  |   | 84.21        |
| Land cost (typical rental value)   |   | 342.85       |
| Other (specify) _____  |   | 30.00        |
| <u>Total overhead costs</u> . . . . .  |   | 457.06       |
| TOTAL COSTS FOR SEED COTTON . . . . .  |   | 1,299.19     |
| MINUS - value of cottonseed<br>extracted in ginning . . . . .                    |   | 164.45       |
| NET COSTS FOR LINT . . . . .   |   | 1,134.74     |
| Net costs for lint in US cents per pound   |   | 63.55        |
| Rate of exchange used for converting<br>local currency into US dollars . . . . . | 1 U.S. dollar = 17.50 Turkish lira      |              |
| <u>Additional remarks:</u>   |   |              |

Upland cotton: Average yields and production costs per hectare planted,  
U.S. and selected regions, 1976 1/

Country UNITED STATES Crop year 1976

Yield used (kilos per hectare)  
- for seed (unginned cotton)  $\frac{1,264}{408}$  (Southeast)  $\frac{1,224}{414}$  (Delta)  $\frac{1,529}{338}$  (Southwest)  
- for cotton lint

| Item  | Average estimated cost per hectare |                     |           |
|---|------------------------------------|---------------------|-----------|
|   | Southeast                          | Delta               | Southwest |
| <u>On farm direct costs</u>                                   |                                    | <u>Cost in US\$</u> |           |
| <u>Preharvesting:</u>   |                                    |                     |           |
| Labor . . . . .   | 26.49                              | 28.59               | 27.53     |
| Power . . . . .   | } 107.14                           | 142.43              | 82.14     |
| Equipment . . . . .   |                                    |                     |           |
| Seed . . . . .  |                                    |                     |           |
| Fertilizer and lime . . . . .                                 | 13.94                              | 12.38               | 11.32     |
| Herbicides . . . . .  | 90.69                              | 53.45               | 9.34      |
| Insecticides & fungicides . . . . .                           | -                                  | -                   | -         |
| Other chemicals . . . . .                                     | 155.65                             | 96.54               | 47.22     |
| District water costs 2/. . . . .                              | 3/                                 | 3/                  | 3/        |
| Custom or contract work . . . . .                             | 15.44                              | 10.11               | 12.50     |
| Other (specify) _____   |                                    |                     |           |
| Subtotal . . . . .  | 409.35                             | 343.50              | 190.05    |
| <u>Harvesting:</u>  |                                    |                     |           |
| Labor . . . . .   | 14.90                              | 16.78               | 6.89      |
| Power . . . . .   | } 107.14                           | 94.96               | 54.76     |
| Equipment . . . . .   |                                    |                     |           |
| Custom or contract work . . . . .                             |                                    |                     |           |
| Other (specify) _____   | 16.09                              | 6.75                | 11.56     |
| Subtotal . . . . .  | 138.13                             | 118.49              | 73.21     |
| <u>Interest on operating capital</u> . . . . .                | 11.69                              | 7.64                | 6.62      |
| <u>Off farm direct costs</u>                                  |                                    |                     |           |
| Transportation to gin . . . . .                               | 8.99                               | 9.12                | 7.46      |
| Ginning (including bagging & ties)<br>Other (specify) _____   | 53.13                              | 60.89               | 67.66     |
| Subtotal . . . . .  | 62.12                              | 70.01               | 75.12     |
| <u>Total direct costs</u> . . . . .                           | 621.29                             | 539.64              | 345.00    |
| <u>Overhead costs</u>   |                                    |                     |           |
| Management & administration 4/. . . . .                       | 42.45                              | 41.51               | 29.33     |
| Land cost (typical rental value)                              | 74.13                              | 86.49               | 64.25     |
| Other (specify) <u>General farm</u><br><u>overhead</u>        | 20.48                              | 24.64               | 18.78     |
| <u>Total overhead costs</u> . . . . .                         | 137.06                             | 152.64              | 112.36    |
| TOTAL COSTS FOR SEED COTTON . . . . .                         | 758.35                             | 692.28              | 457.36    |
| MINUS - value of cottonseed<br>extracted in ginning . . . . . | 75.09                              | 76.13               | 62.32     |
| NET COSTS FOR LINT . . . . .                                  | 683.26                             | 616.15              | 395.04    |
| <u>Net costs for lint in US cents per pound</u>               | 76.0                               | 67.6                | 52.9      |

Country UNITED STATES Crop year 1976

Yield used (kilos per hectare)  
 - for seed (unginned cotton)  $\frac{3,711}{1,197}$  {West }  $\frac{1,691}{473}$  {United States }  
 - for cotton lint

| Item  | Average estimated cost per hectare |               |
|---|------------------------------------|---------------|
|   | West                               | United States |
| <u>On farm direct costs</u>                                   | <u>Cost in US\$</u>                |               |
| <u>Preharvesting:</u>   |                                    |               |
| Labor . . . . .   | 75.81                              | 32.69         |
| Power . . . . .   | } 151.47                           | 111.02        |
| Equipment . . . . .   |                                    |               |
| Seed . . . . .  |                                    |               |
| Fertilizer and lime . . . . .                                 | 64.17                              | 37.66         |
| Herbicides . . . . .  | -                                  | -             |
| Insecticides & fungicides . . . . .                           | -                                  | -             |
| Other chemicals . . . . .                                     | 127.01                             | 82.58         |
| District water costs 2/ . . . . .                             | 37.09                              | 5.29          |
| Custom or contract work . . . . .                             | 53.77                              | 17.17         |
| Other (specify) _____   |                                    |               |
| <u>Subtotal</u> . . . . .                                     | 524.69                             | 298.79        |
| <u>Harvesting:</u>  |                                    |               |
| Labor . . . . .   | 25.28                              | 14.01         |
| Power . . . . .   | } 105.24                           | 80.41         |
| Equipment . . . . .   |                                    |               |
| Custom or contract work . . . . .                             |                                    |               |
| Other (specify) _____   | 49.64                              | 14.63         |
| <u>Subtotal</u> . . . . .                                     | 180.16                             | 109.05        |
| <u>Interest on operating capital</u> . . . . .                | 16.53                              | 8.57          |
| <u>Off farm direct costs</u>                                  |                                    |               |
| Transportation to gin . . . . .                               | 26.39                              | 10.43         |
| Ginning (including bagging & ties)                            | 176.63                             | 77.24         |
| Other (specify) _____   |                                    |               |
| <u>Subtotal</u> . . . . .                                     | 203.02                             | 87.67         |
| <u>Total direct costs</u> . . . . .                           | 924.40                             | 504.08        |
| <u>Overhead costs</u>   |                                    |               |
| Management & administration 4/ . . . . .                      | 125.30                             | 46.08         |
| Land cost (typical rental value)                              | 172.97                             | 86.36         |
| Other (specify) <u>General farm</u>                           | } 56.34                            | 25.80         |
| <u>overhead</u>   |                                    |               |
| <u>Total overhead costs</u> . . . . .                         | 354.61                             | 158.24        |
| <u>TOTAL COSTS FOR SEED COTTON</u> . . . . .                  | 1,279.01                           | 662.32        |
| MINUS - value of cottonseed<br>extracted in ginning . . . . . | 220.36                             | 87.08         |
| <u>NET COSTS FOR LINT</u> . . . . .                           | 1,058.65                           | 575.24        |
| <u>Net costs for lint in US cents per pound</u>               | 40.1                               | 55.2          |

1/ Based on update of 1974 survey data. Average yields in 1976 were relatively low, resulting in above average unit costs in the Delta and Southeast regions.

2/ Other irrigation costs, including labor and power and equipment, are included in preharvest labor, power and equipment. 3/ Less than one dollar per acre.

4/ Based on 7 percent of value of production.

Source: ERS, United States Department of Agriculture (USDA).

Country VENEZUELA Crop year 1976/77

Yield used (kilos per hectare)  
 - for seed (unginned cotton) 1,860  
 - for cotton lint

| Item  | Average estimated cost per hectare      |              |
|---|---|--------------|
|   | Quantity used per ha.<br>(specify unit) | Cost in US\$ |
| <u>On farm direct costs</u>                                   |   |              |
| <u>Preharvesting:</u>   |   |              |
| Labor . . . . .   |   | 51.16        |
| Power . . . . .   | }                                       | 158.14       |
| Equipment . . . . .   |   | 8.72         |
| Seed . . . . .  |   | 72.58        |
| Fertilizer . . . . .  |   | 38.37        |
| Herbicides . . . . .  |   | 142.32       |
| Insecticides & fungicides . . . . .                           |   | 8.60         |
| Defoliant & other chemicals . . . . .                         |   | -            |
| Irrigation . . . . .  |   | 41.86        |
| Custom or contract work . . . . .                             |   |              |
| Other (specify) _____   |   |              |
| Subtotal . . . . .  |   | 521.75       |
| <u>Harvesting:</u>  |   |              |
| Labor . . . . .   |   | 26.16        |
| Power . . . . .   | }                                       | 9.76         |
| Equipment . . . . .   |   | 216.28       |
| Custom or contract work . . . . .                             |   |              |
| Other (specify) _____   |   |              |
| Subtotal . . . . .  |   | 252.20       |
| <u>Interest on operating capital</u> . . . . .                |   | -            |
| <u>Off farm direct costs</u>                                  |   |              |
| Transportation to gin . . . . .                               |   | 34.60        |
| Ginning (including bagging & ties)                            |   | -            |
| Other (specify) _____   |   |              |
| Subtotal . . . . .  |   | 34.60        |
| <u>Total direct costs</u> . . . . .                           |   | -            |
| <u>Overhead costs</u>   |   |              |
| Management & administration . . . . .                         |   | -            |
| Land cost (typical rental value) 8%                           |   | 46.51        |
| Other (specify) _____   |   |              |
| <u>Total overhead costs</u> . . . . .                         |   | 46.51        |
| <u>TOTAL COSTS FOR SEED COTTON</u> . . . . .                  |   | 855.06       |
| MINUS - value of cottonseed<br>extracted in ginning . . . . . |   | -            |
| <u>NET COSTS FOR LINT</u> . . . . .                           |   | -            |
| <u>Net costs for lint in US cents per pound</u>               |   | -            |

Rate of exchange used for converting  
 local currency into US dollars . . . . . US\$ 1 = 4.30 Bs.

Additional remarks: This information refers to the plains in the Midwest (States of Portuguesa & Barinas).  
 NOTE: With reference to ginning costs, value of cottonseed extracted in ginning, and net costs for lint are not mentioned since growers sell unginning cotton to the Asociación Nacional de Cultivadores de Algodón, at the rate of Bs. 2.55 per kg (US\$ 0.59)