



Oct 2001

**FOOD AND AGRICULTURE ORGANIZATION  
OF THE UNITED NATIONS  
FAO REPRESENTATION IN IRAQ**

**AGRICULTURE CONTRACTS ON HOLD  
A BRIEFING BY AMIR A. KHALIL, FAO REPRESENTATIVE IN IRAQ**

---

Mr. Chairman,  
Excellencies, Ladies and Gentlemen,

I am honoured to be here again to brief you on the status of the implementation of the Agriculture Sector under the programme and specifically on the reasons for the release of the applications on hold.

**PROGRAMME IMPLEMENTATION STATUS**

■ **APPLICATIONS -APPROVALS- ON-HOLD- ARRIVALS- DISTRIBUTION**

As at 30 September 2001, the status of the implementation of the Agriculture Sector can be summarized as follows: (SLIDE 1)

- Applications submitted: US \$ 2,973 million
- Approved /notified: US \$ 2,402 million (81 % of submitted)
- Applications on Hold: US \$ 420 million (14% of Submitted)
- Arrivals: US \$ 1,142 million (48% of approval)
- Distribution to end-users: US \$ 840 million (74% of arrival)
- Stock position: US \$ 302 million (26% of arrival)

■ **TRENDS (NUMBER AND VALUES) OF HOLDS AND RELEASES**

It is worth to recall that in May-June 2001, the Committee was gracious enough to release many contracts that were vital for our activities in the Agriculture Sector. May I confirm to Your Excellencies that all items released were very beneficial to the farming communities and the people of Iraq? May I also assure the Committee, as already been documented in the end-use monitoring and assessment task reports, all released supplies are indeed utilized for the purpose for which they have been authorized. However, it is also noted, while further releases were registered during the months of August and September 2001, the trend of rise in number (SLIDE 2) and value (SLIDE 3) of applications placed on hold is not very encouraging and encompasses very essential and complementary items, without which, in the aftermath of two consecutive severe drought years, the revival of the agricultural production and productivity will be in jeopardy.

## ■ OBSERVATION CAPABILITIES (SLIDE 4)

With the new Observation Mechanism in place has enhanced the observation capabilities of the Agriculture Sector from arrival to delivery to end-use/users and their verification that all approved supplies are used exclusively for the intended purpose. At present the Observation international Staff under the disposal of the Agriculture Sectoral Working Group are 28 (FAO 13; UNOHCI 15). The number of Observations undertaken as of 30 September 2001 was:

- Tracking from arrival (Central Distribution points) to the point of utilization (end use distribution): 8,060
- Special (end use/user) Observations: 736
- Focus/Impact Assessments of programme inputs: 3,391

## AGRICULTURE CONTRACTS ON HOLD

### ■ CLARIFICATION DOCUMENT (SLIDE 5)

The Committee has before it a document - **Clarification For The Release of Contracts on Hold as at 31 August 2001** -, prepared in collaboration of the counterpart ministries of Agriculture and Irrigation. The document provides the necessary technical and end use/user clarifications, as required by the Committee, to allow them early consideration the release of applications placed on hold. An addendum is also included in the Report that provides the status of hold per Sub-sector, as at 30 September 2001.

### ■ CLASSIFICATION OF CONTRACTS ON HOLD (SUMMARY AS AT 30 SEPTEMBER 2001) (SLIDE 6)

As at 30 September 2001, the Contracts on hold placed can be summarized as follows:

1. As at 30 September 2001, 174 contracts, worth US\$ 420 million and accounting for 14 percent of the total agricultural applications submitted were on hold;
2. The 174 contracts on hold involves more than 16,000 essential and/or complementary items;
3. Out of the 174 contracts, 61 contracts (35%) were queried and received clarifications, while 85 contracts (49%) had similar or identical inputs authorized and delivered to Iraq and are presently in use for the intended purposes.

■ **CLASSIFICATION OF HOLDS (BY SUB-SECTOR)**

Classification of holds per sub-sector can be summarized as follows: (SLIDE 7)

Sub-sector	On Hold	Similar/identical Approved	Technical/end-use Classified	Other
Animal Health	19	9	7	3
Animal Production-poultry	2	2	-	-
Plant Protection	30	25	5	-
Irrigation	43	35	6	2
Machinery	80	14	43	23
Total	174	85	61	28

**STATUS OF CONTRACTS ON HOLD (DETAILS BY SUB-SECTORS):**

■ **PRESENTATION SEQUENCES (SLIDE 8)**

- Categories
- Contracts on hold
- Results
- Consequences

■ **ANIMAL HEALTH (SLIDES 9/10)**

Under the Animal Health, vital inputs on hold cover **veterinary vaccines, diagnostic and laboratory equipment, cold chain, and cattle artificial insemination**. There are **19** applications on hold for duration of more than **259** days and worth **3.6 million US \$**.

Consequent of the contracts on hold, vital programme schedule of preventive vaccination for both poultry and ruminants endemic diseases is totally curtailed. These include vaccines against Newcastle diseases, infectious bronchitis, egg drop syndrome and mareck disease, which are the cause of 90% of chicken mortality. The vaccines against Enterotoxaemia, which is country widespread disease that is suppressing the start of small ruminants' growth recovery, in the aftermath of two consecutive severe drought years. This is compounded by the effects of the holds on the required diagnostic equipment, reagents, kits, cold Chain complementary items such as compressors, generators, refrigerators and cold trucks;

## CONCLUSIONS

### □ REASONS FOR RELEASE OF CONTRACTS FROM HOLD (SLIDES 22)

#### ■ STATUS OF AGRICULTURE SECTOR / SEASONALITY/ 1051 ITEMS

In conclusion, Mr. Chairman, the Agriculture Sector ranks **number three**, after Food and Health Sectors, and thus remains a very important sector in the SCR 986 programme. Unlike other Sectors, **agricultural activity is seasonal**, and hence, timely inputs deliveries constitute a determining factor of the Sector's productivity and production. Late deliveries will add not only to storage difficulties and missed seasons, but will diminish the efficacy of most inputs. In addition, the aftermath of two consecutive severe drought years of 1998/1999 and 1999/2000 agricultural seasons have taken its toll on the production and productivity of the Sector. This is compounded by the non-availability of basic and complementary inputs, consequent of the holds of the basic supplies and complementary items, that resulted in the increased incidence of animal and crop diseases, and crippled the diagnostic capabilities of the veterinary laboratories, functionality of the poultry hatcheries, proper hygienic transportation of eggs and meat and the effective use of the meager water resources.

#### ■ CONSEQUENCES OF HOLD (SLIDE 23)

The consequences of the hold are felt across all the agricultural Sub-sectors and are leading to decline in the overall agricultural productivity and worsening farmers' income and the nutritional status of large segment of the population. To achieve reversal of the negative impact of the holds on agriculture productivity, require the full cooperation of all parties concerned. It is for this reason that I am here to-day to appeal to the Committee to approve the agricultural inputs on package basis and release the holds placed on the agricultural applications, taking into consideration that, as at September 2001, 146 of 174 contracts on hold are either identical or similar to items already approved and/or have previously received adequate clarifications, and in the light of presented - Clarification Document- . We have also prepared a list of - PRIORITY OF PRIORITIES- for Your Excellencies consideration for an immediate release.

#### ■ OBSERVATION CAPABILITIES (SLIDE 24)

Lastly but not the least, may I emphasize that the concerns of the Committee is being satisfactorily met through the **new observation mechanism** in place, with 28 international professionals, 13 from FAO and 15 from UNOHCI. The new observation mechanism has proven to enhance the capability of tracking inputs, including dual use, from their delivery to the country to its end-user, and also continues to confirm the use and the user of the inputs on regular basis.

### □ APPEAL TO 661 COMMITTEE (SLIDE 25)

I thank you for the opportunity to meet you again. I am confident that the presented document - **Clarification For the Release of Contracts on Hold**, as at 31 August 2001, meet satisfactorily the Committee's concerns and generate speedy release of all agricultural inputs on hold and in particular the **priority of priorities list (SLIDES 26/27)**.

### □ \*\*\* END \*\*\*\* (SLIDE 28) Photograph: Citrus Orchard infested with whitefly

■ **ANIMAL PRODUCTION - POULTRY (SLIDES 11/12)**

Categories on hold under the Animal Production (poultry) are spare parts for hatcheries and refrigerated trucks, valued 1.7 million US \$ and more than 554 days under hold. These equipment and materials are very essential for semen collection; proper functioning of the hatcheries and hygienic transportation of animal products. In short, all these inputs on hold limit the opportunities for the enhancement of the animal and poultry programmes, constrain availability of supplements for the food basket, and create adverse effects on the nutritional status of a large segment of the Iraqi population.

■ **PLANT PROTECTION (SLIDES 13/16)**

In the Plant Protection/Production Sub-sector, the Categories on hold consist of very essential pesticides, sprayers of varied capacities and the spare parts of the agricultural helicopter sprayers, with a total value of 16.1 million US \$, and were on hold on an average of 258 days. Consequently, this has resulted in markedly increase of the incidence of crop pestilence and diseases and drastically reduced crop production and productivity. A vivid example of the consequence of the holds on sprayers and necessary pesticides is inability of the government of Iraq's to arrest and contain the development and spread of the recent outbreak of the whitefly, which is posing serious threat to the country's citrus orchards, and inferably leading to great economic losses to farmers investment of over 30 years.

■ **IRRIGATION (SLIDES 17/19)**

In the Irrigation Sub-sector, most of the contracts were placed on hold for over 171 days and are worth 192 million US\$. Categories of the holds cover equipment and machinery for operation and routine maintenance for the existing irrigation projects, irrigation infrastructure, inputs for water resources management and development, and over 2300 pressurized irrigation systems (drip and sprinkler systems and accessories). The contracts on holds have severely curtailed the efforts to improve proper utilization of the meager water resources, improve on-farm irrigation efficiencies, lessen the problems of water logging and soil salinization, and mitigate drought effects, as well as the sustainability of adequate supply of irrigation waters to small and medium sized farmers' field.

■ **MACHINERY AND SPARE PARTS (SLIDES 20/21)**

In the Machinery Sub-sector, the inputs are placed on hold for more than 203 days and are worth 206.5 million US \$. Inputs on holds include agricultural machinery, equipment, and spare part for on-farm irrigation systems, crop ground and aerial spraying, and agro-industry. Consequent to the holds, cultivated areas had been reduced; efficient use of meager water resources curtailed and limitations on the production of fertilizers and sugar has respectively affected agricultural productivity and supplements to the food basket.

## Contracts On Hold

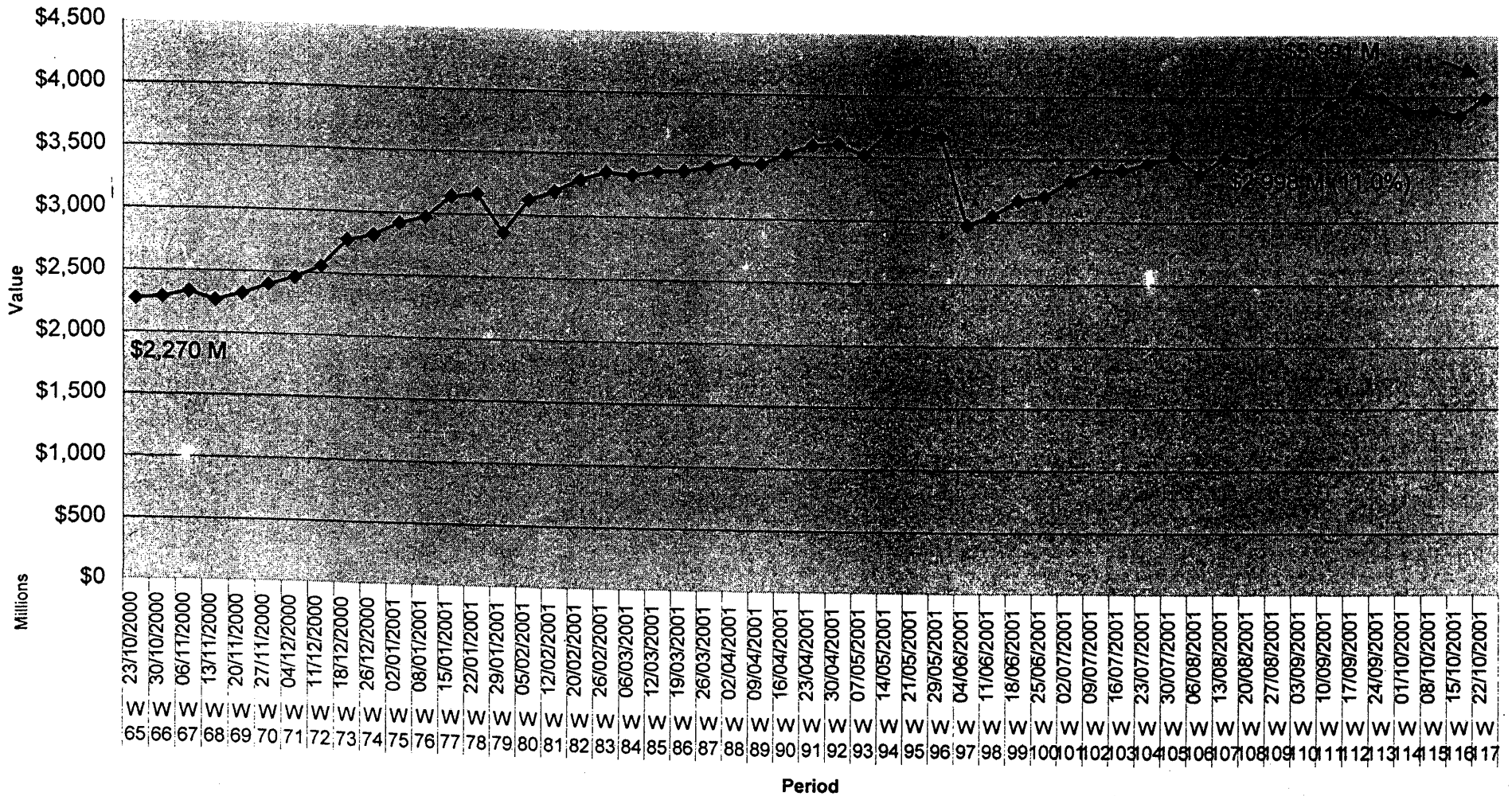
### Priority of Priorities List for Immediate Release

Sub-Sector	On Hold		Justification
	Total No.	Comm Nos.	
Animal Health	7	Enterotoxaemia Vaccines: (700645, 801323, 900641) Diagnostic Lab. Equipment: (700869, 800774) Cold Chain Equipment: (702533) Cattle Artificial Insemination: (700979)	Vaccines for preventive vaccination for poultry and ruminants to arrest occurrence and spread of diseases. Rapid diagnosis and surveillance of infection diseases. Proper storage of vaccines and drugs.
Animal Production Poultry	2	Hatcheries Spare Parts: (601339) Refrigerated Trucks: (601756)	Reduce mortality of chicks. Improve hygienic transportation of animal and poultry products.
Plant Protection	27	Pesticides: (700375, 700725, 701457, 701750, 701955, 702576, 801931, 802464, 802624, 901036, 901038, 901052, 901054, 901076, 901278, 901286, 901488, 901515) Sprayers (under Machinery): (901033, 601234, 601960, 701912, 702071, 702077, 702149, 702402, 702590)	Essential to meet seasonality requirements. Arrest the development and spread of whitefly infestation on items orchards.
Irrigation	6	Casing Pipes: (501298) O&M Drains Equipment: (600654) Water Well Drilling Rigs: (601996, 800742) Concrete Mixing Plant: (802205, 802214)	Complementary items for water development equipment. Improve functionality of irrigation infrastructure. Increase water supplies for agriculture and human use. Improve efficient water use at four level
Machinery	16	Irrigation Systems (Sprinklers/Drip): (701023, 802085, 702308, 800531, 800775, 801548, 801969) Agro-Plants: (702083, 702369, 702403) Agric. Spray Helicopter Parts: (801980, 900066, 900065, 900039, 900038, 900144)	Increase crop cultivated areas. Improve on-farm irrigation systems. Improve supplementary to food-basket and hence nutritional status of population.

**Chart I**

**Overall Weekly Value of Holds  
From 23/10/00 to 22/10/01 (Phase IV-X)**

◆ Grand Total



## AGRICULTURE SECTOR

-- Holds Update --

(As at 1 October 2001)

1. There were 171 applications on hold in the Agriculture sector with a total value of \$397.0 million, which represents 16.2 per cent of the value of applications circulated to the Security Council Committee established by resolution 661 (1990), and 14.7 per cent of the combined value of all applications circulated to the Committee as well as notified by the Office of the Iraq Programme. The percentages are similar to the same figure in October 2000 (16.3 per cent of overall holds). They are higher in comparison to the absolute low for this sector of 11.3 per cent in July 2000, following the first set of 661 Committee meetings on holds in various sectors at that time but still lower than the respective percentages in May 2001 (24.2 and 20.4 percent). The list of applications on hold in this sector, with all the relevant details, including reasons for hold and follow-up action taken, is attached as Annex 1.

2. Table 1 below provides a breakdown of the types of goods on hold in this sector:

(Table 1)

CATEGORY	NUMBER OF APPLICATIONS	US\$ VALUE	PERCENTAGE OF TOTAL VALUE ON HOLD
HEAVY MACHINERY AND VEHICLES (to include trucks, pick-ups, excavators, bulldozers, cranes and mobile drilling equipment)	29	\$185.6M	46.7%
IRRIGATION EQUIPMENT (to include irrigation pumps, center pivot and sprinkler units, drip units and spare parts)	17	\$92.0M	23.3%
MATERIALS FOR LOCAL AGRICULTURE PRODUCTION (to include raw materials, machines, production lines, spare parts)	64	\$86.7M	21.8%
CROP PROTECTION ITEMS (sprayers, pesticides)	35	\$24.1M	6.0%
POWER GENERATORS	3	\$4.6M	1.2%
VET VACCINES, SUPPLIES AND LAB EQUIPMENT and SUPPLIES	22	\$4.1M	1%
TOTAL	171	\$397.0	100%

3. At present, the largest category of holds (46.7% of the total value on hold) includes various vehicles and heavy machinery. In most cases, the applications are on hold for additional technical information, often not on the main piece of equipment but on various spare parts, tool sets, kits, etc. In some cases (especially cranes and heavy equipment and vehicles), the items are deemed by the holding mission to be either 1051-rated or of "dual use".



4. Previously the largest category of goods on hold, irrigation equipment has dropped to the second place with 17 applications worth \$92.0 million. This is a combination of efforts to alleviate consequences of draught and revised 1051 list, the latter resulting in release of a number of high-value applications previously deemed to contain 1051-rated fiberglass tanks.

5. The category with the largest number of applications on hold (64), but constituting 21.8 per cent in terms of the value, includes a wide variety of items that are used for local production of food or other agricultural items. In most cases, the reason for hold is given as "require additional technical information" or "information on exact end-use". Some are on hold for being on the "1051 list", while some are rejected on the basis of their specific end-use, such as spare parts for the rehabilitation of a fertilizers production plant in Al-Qaim. There has recently been a request for a number of applications containing such goods to confirm end-use verification to include checks on the utilization of final products to be produced by some of these facilities. OIP is currently looking into the request.

6. Two smaller groups (6.0 and 1.0 per cent, respectively) include crop protection goods (sprayers and pesticides) and veterinarian products, to include vaccines and laboratory equipment. There has recently been an increase in the level of hold on various types of pesticides and sprayers. Although the value on hold is relatively low, both categories are very good examples of how the lack of relatively low-value items at the appropriate time could cause serious consequences for either crops production or animal population. Applications in the two categories are usually placed on hold for "containing 1051 items" or for "dual use". Similar or identical items (especially vaccines) have been approved previously under the condition of United Nations observation and monitoring. Therefore, it is recommended that the Committee approve additional applications under the same condition, especially applications containing Foot and Mouth Disease (FMD) vaccines. A comprehensive report on enterotoxaemia vaccine and related issues was recently prepared and distributed to the Committee.

7. Finally, the smallest category includes 3 applications for diesel generators. Given the precarious situation with power supply in Iraq, these goods are very important for operation of irrigation pumps, as well as in poultry industry, etc. Generators tend to be placed on hold for "additional technical information", "precise end-use/user details" and, in one case, for being of "dual-use".

8. Table 2 below provides a breakdown of the reasons for holds in this sector:

Table 2

CATEGORY	%	US\$ VALUE (NUMBER)	NOTE
ONLY additional information required, including technical and end-use/user information	65.5%	\$260.0M (71)	Info provided: (26) \$120.6M 30.4%
			Info not provided:(45) \$139.4M 35.0%
1051-Items	24.6%	\$98.2M (58)	Sect & Ctte: (21) \$34.4M 8.6%
			Ctte only: (32) \$62.3M 15.7%
			Legacy: (5) \$1.5M 0.3%
"Dual Use"	8.5%	\$33.4M (31)	Vaccines, sprayers, compressors, copper plates, trucks, cranes, pesticides
Pending further evaluation	0.8%	\$3.1M (3)	700375, 701464, 702353
Other reasons	0.6%	\$2.6M (8)	Mainly due to confirmation of specific end-use verification conditions
TOTAL	100%	\$397.0 (171)	

9. With 65.5 per cent of the value, "additional information requested" constitutes, by far, the largest category of the reasons for holds. Our records indicate that in 26 cases the requested information has been provided, while in 45 other cases, such information appears not to have been provided. It should be noted, however, that in the majority of cases involving the request for additional information as well as responses to such requests are fairly recent and, consequently, more time should allowed for receiving appropriate feedback from the submitting missions or the holding Committee members. The Office of the Iraq Programme will be issuing regular reminders to the submitting missions in cases where the requested information has not been received in excess of 60 days. At the same time, the reminders will be issued to the holding missions for applications where the requested information has been provided but with no feedback for more than 60 days.

10. The second highest value group (24.6 per cent) includes applications containing 1051 goods, either determined by the experts of Secretariat and of the Committee members to contain 1051 items or only by the holding mission.

11. There are also 31 applications worth \$33.4 million (8.5%), which are placed on hold for "dual-use" reasons. The types of goods in this category are indicated in Table 2 above. There are only three applications on hold "pending further evaluation". However, these holds have been in place for 6 to 11 months, and a timely feedback would enable OIP to take further action.

**CONCLUSION:**

- **The level of holds has gone up again in both absolute and relative terms after a successful reduction of the level of holds during May-July 2000 campaign for reducing the holds. However, the present level is still lower than absolute high in May-June 2001, largely due to release of a number of irrigation equipment applications following the revision of then 1051 list.**
- **In value terms, applications on hold for irrigation equipment and heavy machinery (the latter also used mainly in irrigation projects), constitute 70 per cent of the total value on hold, although the number of applications on hold in the two categories is just above one-quarter of the total number of applications on hold.**
- **OIP strongly encourages approval or release from hold under the condition of end-use observation and monitoring of low-value applications for such essential items as vaccines and pesticides.**
- **A prompt feedback on applications where the required information appears to have been provided (marked OKINFO in the attached Annex 1), would be most helpful in moving the process ahead, as well as further progress on applications remaining on hold for "pending further evaluation" only for extended periods of time (700375, 701464, 702353).**

\*\*\*\*\*

\*\*\*

\*

# PRIORITY OF PRIORITIES

## Comms for Immediate Release

Sub Sector	On Hold		Justification
	Total #	Comm Nos	
Animal Health	3	<ul style="list-style-type: none"> <li>• Enterotoxaemia Vaccines: (700645, 801323, 900641)</li> <li>• Diagnostic Lab Equipment: (700869, 800774)</li> <li>• Cold Chain Equipment: (702533)</li> <li>• Cattle Artificial Insemination: (700179)</li> </ul>	<ul style="list-style-type: none"> <li>• Vaccines for preventive vaccination for poultry and ruminants to arrest occurrence and spread of diseases.</li> <li>• Rapid diagnosis and surveillance of infectious diseases.</li> <li>• Proper storage of vaccines and drugs.</li> </ul>
Animal Production (Poultry)	2	<ul style="list-style-type: none"> <li>• Hatcheries Spare Parts: (601333)</li> <li>• Refrigerated Trucks: (601750)</li> </ul>	<ul style="list-style-type: none"> <li>• Reduce mortality of chicks.</li> <li>• Improve hygienic transportation of animal and poultry products.</li> </ul>
Plant Protection	1	<ul style="list-style-type: none"> <li>• Pesticides: (700325, 800225, 701457, 701750, 701955, 702570, 801931, 802464, 802624, 901036, 901038, 901052, 901094, 901076, 901278, 901286, 901488, 901515)</li> <li>• Sprayers (under Machinery) (901033, 601234, 601960, 701912, 702071, 702077, 702149, 702402, 702590)</li> </ul>	<ul style="list-style-type: none"> <li>• Essential to meet seasonality requirements.</li> <li>• Arrest the development and spread of whitefly infestation on items orchards.</li> </ul>

# PRIORITY OF PRIORITIES

## Comms for Immediate Release (Cont'd)

Sub Sector	On Hold		Justification
	Total #	Comm Nos	
Infrastructure	4	<ul style="list-style-type: none"> <li>• Comm. Pipes: (601206)</li> <li>• SAMI's and Equipment: (600651)</li> <li>• Large Wheel Loading Rigs: (801996, 800742)</li> <li>• Concrete Mixing Plant: (802205, 802214)</li> </ul>	<ul style="list-style-type: none"> <li>• Complementary items for water development equipment</li> <li>• Improve functionality of irrigation infrastructure</li> <li>• Increase water supplies for agriculture and farm use</li> <li>• Improve efficient water use at farm level</li> </ul>
Machinery	16	<ul style="list-style-type: none"> <li>• Irrigation Systems (Sprinklers/Drip): (701023, 702085, 702308, 800531, 800775, 801548, 801969)</li> <li>• Agro Plants: (702083, 702369, 702403)</li> <li>• Agric. Spray Helicopter Parts: (801980, 900066, 900065, 900039, 900038, 900144)</li> </ul>	<ul style="list-style-type: none"> <li>• Increase crop cultivated area</li> <li>• Improve on farm irrigation systems</li> <li>• Improve supplementary to food basket and better nutritional status of population</li> </ul>

# **SECTORAL BRIEFING TO SC 661 COMMITTEE**

---

**STATUS OF THE AGRICULTURE SECTOR**

**PRESENTATION BY**

**Amir A. Khalil**

**FAO Representative in Iraq**

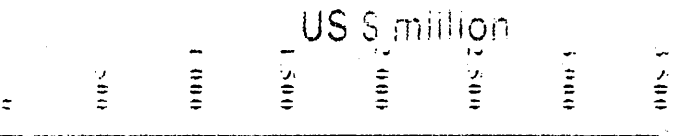
**New York**

**22 October 2001**

# PROGRAMME IMPLEMENTATION STATUS

- APPLICATION APPROVAL HOLDS ARRIVAL - DISTRIBUTION

Submitted 2 973

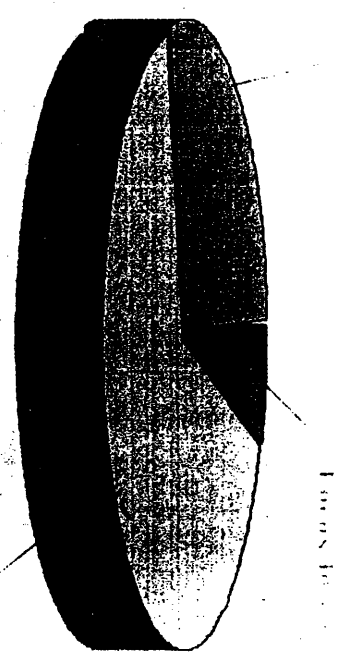
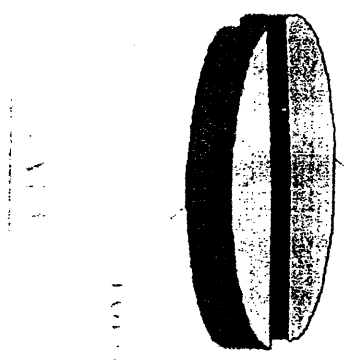


000001111

# PROGRAMME IMPLEMENTATION STATUS

(Cont'd)

## • OBSERVATION



NUMBER OF OBSERVATIONS



# CONTRACTS ON HOLD

(Cont'd)

(Summary As at 30 September 2001)

• **TOTAL NUMBER 174**

• **CLASSIFICATION:**

• of form Applications:	14
• Value (US \$ million)	420
• Category (Essential & Complementary items):	16,000
• Contracts having similar or identical inputs approved and delivered to Iraq	85 (49%)
• Others contracts queried and clarification provided to the Committee	61 (35%)
• Contracts pending Clarification	28 (16%)

STATUS OF CONTRACTS  
(DETAILS BY SUB-SECTOR)

---

PRESENTATION SEQUENCES:

- AGREEMENTS
- CONTRACTS ON HOLD
- RESULTS
- CONSEQUENCES

# ANIMAL HEALTH

---

- **CATEGORIES:**

- Veterinary Vaccines
- Diagnostic Equipment and Laboratory Materials
- Cold Chain
- Cattle Artificial Insemination

- **CONTRACTS ON HOLD:**

- Total number: 19
- Value (US\$ million): 3.6
- Average duration on hold: 259 days

# ANIMAL HEALTH (Cont d)

---

## • RESULTS:

- Shortage of needed vaccines;
- Lack of diagnostic facilities;
- Non-functional cold chains;
- Lack of quality genetic material for artificial insemination.

## • CONSEQUENCES:

- Curtailing poultry and ruminant preventive vaccines programme against endemic diseases;
- Lack of improvements in local cattle breeds.

# ANIMAL PRODUCTION POULTRY

---

- **CATEGORIES:**

- Hatcheries Spare parts
- Refrigerated Trucks

- **CONTRACTS ON HOLD:**

- Total number: 2
- Value(US\$): 1.7
- Average Duration: 554 days

# **ANIMAL PRODUCTION POULTRY**

---

- **RESULTS:**

- **Deficiency in functional poultry houses;**
- **Dependence of non-appropriate transportation;**
- **Non-proper functioning of the hatcheries.**

- **CONSEQUENCIES:**

- **Reduction of egg production by 55 million/year**
- **Adverse effect on supplements to food basket**
- **Higher chick mortality;**
- **Lower egg hatchability.**

# PLANT PROTECTION

---

## • CATEGORIES

- Crop Pesticides;
- Agro-Industry Chemicals;
- Sprayers of varied capacities.

# PLANT PROTECTION

(Cont'd)

## • CONSEQUENCES:

- Reduction of agricultural productivity:

  - Approximately 500,000 hectares of citrus orchards are threatened by the whitefly outbreak;

  - Lack of adequate protection of vegetable areas, producing over 4.7 million tons.

- Great reduction in small farmers income;

- Increased market price for fruits and vegetables;

- Adverse effect of nutrition condition of a majority of population.



# PLANT PROTECTION

(Cont'd)

## • CONTRACTS ON HOLD:

Pesticides	Total number:	20
	Value (US\$ million):	9.8
	Ave. duration on hold:	194 days
Sprayers:	Total number:	9
	Value (US\$ million):	6.2
	Ave. duration on hold:	395 days
Agro-industry: (Chemicals)	Total number:	1
	Value (US\$):	44,600
	Duration on hold:	300 days

# PLANT PROTECTION

(cont'd)

---

## RESULTS:

- Lack of essential pesticides, Plant chemicals and Inadequacy supply of sprayers;
- Increased incidence of crop pests and diseases;
- Inability of GOI to arrest spread of whitefly outbreak;
- Drastic output reduction of fertilizer and sugar plants.

# MACHINERY AND SPARE PARTS

---

- **CATEGORIES:**

- On-farm machinery and spare parts;
- On-farm irrigation systems (sprinklers, drips);
- Complementary items (pumps, cranes, generators);
- Equip./ spare parts & complementary for agro-plants;
- Agriculture spray helicopter spare parts.

- **CONTRACTS ON HOLD:**

- Total number: 80
- Value( US\$ million): 206
- Average duration of holds 203

# **MACHINERY AND SPARE PARTS** (Cont.)

---

- **RESULTS:**

- In-efficient on-farm irrigation system;
- Constraints in drought mitigation measures,
- Limitations on irrigated agriculture;
- Inadequate output of the agro-plants.

- **CONSEQUENCES:**

- Reduction in cultivated areas;
- Decrease in the overall agricultural productivity;
- Worsened farmers income;
- Adverse effect on enhancement of nutritional condition of the Iraqi population.

# IRRIGATION

## • CATEGORIES:

### • Equipment & Machinery for:

O&M of irrigation projects and infrastructures:

(loaders, pumps, pipes, mixing plants, jacking machines, cranes, bulldozers, excavators, lab. Equip.):

Draught mitigation & water resources development:  
(drilling rigs, bored piles, pumps, pipes)

## • CONTRACTS ON HOLD:

- |                             |             |
|-----------------------------|-------------|
| • Total number:             | 43          |
| • Value (US \$):            | 192 million |
| • Average Duration on hold: | 171 days    |

# IRRIGATION

(Cont'd)

---

## • CONSEQUENCES:

- Limited water supply to farmers fields and on-farm irrigation systems;
- Limited O & M of irrigation canals and drains;
- Decrease of cultivated areas;
- diminishing returns from farmers investments on irrigation infrastructure and systems ( drip, sprinkler);
- Curtail of drought mitigation measures

# IRRIGATION

(cont'd)

## RESULTS

- Lack of essential complementary items for projects and water wells;
- Inefficient utilization of the limited water utilization;
- Weed growth in canals and water flow blockages;
- Rise of soil salinization and water logging in farmers fields
- Deficiencies in on-farm irrigation systems.

# CONCLUSIONS

(Cont'd)

## JAPANESE FOR RELEASE OF CONTRACTS PLACED ON HOLD

Approval of agricultural inputs on packers  
basis

Release of all contracts on hold, and in  
particular for immediate release from hold  
of the PRIORITY OF PRIORITIES LIST



# CONCLUSIONS

(Cont'd)

## • NEW OBSERVATION MECHANISM IN PLACE

- Enhanced Agriculture Observation capabilities
- 20 ASWG Deployed International Staffing Resources (FAO 13 UNOHCI 15)
- Proven ability to track for all contracts from arrival to delivery to end users;
- Effective and efficient verification that are used for intended purposes

# CONCLUSIONS

(Cont'd)

## • SUMMARY OF CONSEQUENCES OF THE HOLDS

Increased incidence of animal and crop diseases

Constraints in proper development and efficient use of the meager water resources

Limitations in the area cultivated under irrigated agriculture

Constraints in drought mitigation measures

Crippled diagnostic capabilities of veterinary laboratories

Non-functionality of poultry hatcheries

Inadequate hygienic transportation of poultry and animal products

**UNITED NATIONS**



**NATIONS UNIES**

**FAO, ITU, UNCHS, UNDP, UNESCO, UNICEF, UNOHCI, WFP, WHO**

**Inter-Agency Observation Mechanism in Iraq**

**Agriculture Sector Working Group**

**Lead Agency:**



مجموعة عمل قطاع الزراعة

المنظمة المسؤولة: منظمة الأغذية و الزراعة

**Field Visit Report  
On**

**Whitefly Outbreak Areas in Center of Iraq**

**Baghdad  
August 2001**

# Report on Field Visit to Whitefly Outbreak Areas in Centre of Iraq

## 1.0 INTRODUCTION

Pursuant to reports about a massive whitefly outbreak in citrus orchards, ASWG Plant Protection team carried out jointly with staff from GOI Plant Protection Corporation a field visit to some of the affected areas in Centre of Iraq. The aim of the exercise was to:

- Assess the degree of infestation by the whitefly in the affected citrus fields;
- Evaluate the extent of damage and economic aspect of the infestation;
- Obtain information on the areas of citrus orchards damaged by the pest.

## 2.0 BACKGROUND

In Iraq, the whitefly was considered as a minor pest of vegetables- mainly tomato, grown in both the greenhouses and open fields. The host plants are generally attacked on the lower surfaces of their leaves. They suffer from loss of sap and from toxic substances in the saliva of the whitefly, causing yellowing and leaf shedding. Sooty mould develops on the honeydew produced by the insects and ultimately hinders the assimilation of the leaves. Some whitefly species transmit serious viruses on various crops.

Preliminary reports about a build up of whitefly populations in citrus orchards in Diyala and Baghdad governorates in Centre of Iraq were first received in October last year. However, the infestation reached unprecedented proportions in April 2001, when it inflicted great damage to citrus production in the affected areas.

The present whitefly outbreak is mainly attributed to the shortage of effective control operations, consequent of the lack of recommended pesticides against the pest, and the inadequacy of the availability of orchard spraying equipment. The effective pesticides for whitefly control include Nurelle, Methidathion, Thiamethoxam, Evisect, Polo, and Trigard. On the other hand, the appropriate orchard spraying equipment includes mounted sprayers (of more than 200-litre capacity) and wheelbarrow sprayers (of 100 litres capacity). Needless to say however, placing on-hold of spraying equipment and useful pesticides greatly contributed to the gravity of the present outbreak situation. A total of 750 metric tons of 36 very essential pesticides for fruit and vegetable production are currently on "hold" by the 661 Committee, of which 110 tons of 11 are essential insecticides that are mainly used for whitefly control in Iraq (Annex I). In addition, 12,700 units of sprayers of varied capacities (Annex II), as well as spare parts for the agricultural spraying helicopters (Annex III) are on "hold" for more than two years.

## 3.0 CURRENT STATUS OF WHITE FLY INFESTATION

### 3.1 Affected Areas

The present total affected area is estimated to be 15,000 ha of citrus orchards in four governorates in Centre of Iraq, namely Diyala, Wassit, Kerbala, and Baghdad. Diyala Governorate alone has 6,000 ha of heavily infested orchards. However, field observations from other governorates confirm that the infestation is rapidly spreading through whitefly migration to new areas in neighbouring governorates.

### **3.2 Damage and Economic Importance**

The visited affected citrus orchards were found to be severely infested by the whitefly. There were more than 300 nymphs per leaf (Fig. 1) and the upper surface of the leaves became mottled with yellow spots. Furthermore, honeydew secreted by the pest covered the leaves and promoted the development of black mould on the leaf surface (Fig. 2). There was a severe shedding of leaves and the whole citrus tree looked weak and unhealthy (Fig. 3). Most of the infested trees did not bear fruits, reducing the overall production of citrus in the severely affected areas to almost nil.

### **3.3 Control Measures**

Due to the great shortage of recommended pesticides for whitefly control and lack of proper spraying equipment, only about 10% of the affected areas were sprayed with Polo. Consequently, there was a rapid increase in whitefly populations and farmers reverted to spraying of a local detergent (i.e. Zahi), in an attempt to wash whitefly nymphs from leaf surfaces. As a result of those ineffective control measures, the build up of the pest continued without check, until it reached the present serious outbreak situation.

## **4.0 CONCLUSION AND RECOMMENDATION**

### **4.1 Conclusions**

- 4.1.1 The massive "holds" of essential agricultural inputs ( approx. worth \$400 million), coupled with incidence of crop pestilence and disease has a negative impact on the overall agricultural production that is leading to decline in agricultural productivity and worsening farmers' income and the nutritional status of the vulnerable population.
- 4.1.2 The present outbreak of whitefly in citrus orchards, and its underlying consequences, poses a serious threat to citrus cultivation in Iraq.
- 4.1.3 There is much concern about allowing the present serious outbreak situation to continue until winter, which is only two months away. The favourable climatic conditions at that time will greatly enhance the development and build up of large populations of the whitefly, which might migrate and invade new areas, seriously affecting citrus cultivation in the whole of Iraq. This calls for an urgent arrest and reversal of the build up and spread of the pest.

### **4.2 Recommendation**

- 4.2.1 The "holds" on pesticides and spraying equipment are hampering the proper control of all agricultural crops pests and causing excessive low yields, crop failure and economic losses to the farmers. It is pertinent that the pesticides and spraying equipment are urgently released from "hold". Furthermore, many of these pesticides and spraying equipment (Annexes I, II and III) are essential for effective control of the whitefly and will greatly contribute in resolving the present serious outbreak situation. Hence an urgent need for their release is warranted to forestall very serious economic disaster for citrus growers.
- 4.2.2 Under the new observation mechanism, ASWG can effectively monitor both pesticides and spraying equipment to ensure their use for their intended purposes.

**WHITEFLY INFESTATION IN THE CENTRE OF IRAQ**



**Fig. (1):** Underside of heavily infected citrus leaf showing large number of whitefly pupae.

**Fig. (2):** Upperside of heavily infected citrus leaf showing whitefly sooty mould growth.



**Fig. (3):** Damaged citrus tree showing leaf shedding and yellowing of leaves.