

QUESTIONNAIRES TO COUNTERPARTS TRAINED IN JAPAN

1. Name: Mr. MD. ABDUR RASHID
2. Training Period in Japan, Theme of Training: March 19 to Nov. 20, 1981, Vegetable crops production
3. Assignment & Position at the Time of Training: Scientific Officer (Veg.), CVSRC, BARI.
4. Present Assignment & Position: Senior Scientific Officer (Veg.), CVSRC, BARI.
5. State your Opinion:

5-1. Training in Japan

Contents of Training: a) #Satisfied

b) Unsatisfied (If you select (b), state the reason of it.)

5-2. After Returning to Bangladesh,

Studies Performed in Japan are a) #Very much Useful

b) Fairly Useful

c) Useless (If you select (b) or (c), state the reason of it.)

6. State your Opinion on the Project (e.g. Japanese Experts, Project Management & its Research Works, Bangladesh Counterparts and so on)

Japanese expert: My vegetable Expert is very much cooperative with me. His research ability and thinking about the problems of vegetable cultivation in this country is always appreciated by everybody.

Project Management and Research Works: Project management and research work is running very smoothly. It is due to the shoulder to shoulder cooperation between the project manager, Japanese experts and counterparts.

QUESTIONNAIRES TO COUNTERPARTS TRAINED IN JAPAN

1. Name: Mr. ABUL HOSSAIN
2. Training Period in Japan, Theme of Training: Feb. 8, 1979, to Nov. 30, 1979, Higher technology in vegetable crops production
3. Assignment & Position at the Time of Training: Scientific Officer, Research work on vegetables
4. Present Assignment & Position: Scientific Officer, Experiment on seed production of different vegetable crops such as, Raddish, eggplant, watermelon and some other summer leafy vegetables; management of the CVSRC sub-centre
5. State your Opinion:

5-1. Training in Japan

Contents of Training, a) #Satisfied

b) Unsatisfied (If you select (b), state the reason of it.)

Highly satisfactory because the knowledges which I have gained during the training period in Japan is now very much helpful in the seed production of some vegetable crops in Bangladesh.

5-2. After Returning to Bangladesh,

Studies Performed in Japan are a) #Very much Useful

b) Fairly Useful

c) Useless (If you select (b) or (c), state the reason of it.)

6. State your Opinion on the Project (e.g. Japanese Experts, Project Management & its Research Works, Bangladesh Counterparts and so on)

The Japanese Experts who are now working in Bangladesh in Citrus and Vegetable Seed Research Project are very much active and sincere. They have vast knowledge in their respective fields.

The management of the project is highly satisfactory. Because all possible research equipment and facilities are available.

This Project conducts a number of experimental work in vegetable seed production and achieved some new varieties.

The relationship between Bangladesh counterparts and experts of this project is very good. They are always cooperative each other.

VI-4. 機材利用状況

供与機材については、チッタゴン港陸揚後、雨ざらしで1年間ほど放置されるため「水ぬれ」による故障が目立つ。昭和54年度供与した野菜の種子は、このため使用不能となった。また殺菌灯、スライドプロジェクターのランプなど消耗品の交換が必要な機材については、供与時にスペアを必ず付ける他、定期的供与が必要である。

昭和54年度に供与したポリビニール、寒冷沙等の園芸用資材については既に使い切っている。

主な供与機材の利用状況表(58年8月現在)

供与年度	供与機材名	仕 様	現有数	利用管理状況に関する特記事項
52	日野トラック	KM-310E	1	
	オートバイ	ヤマハメイトV50	8	
	トラクター	久保田L-3500	1	ウォーターポンプ故障中
	耕運機	久保田K-75	3	
	動力噴霧機	ヤンマーLEAD TS60	2	
	動力散粉機	ヤンマーMK-150	3	
	草刈機	ヤンマーFK-3	2	ほとんど使用せず
	管理機	ヤンマーYK-450S	1	
	灌水ポンプ・大型	久保田 4線3相415V	1	
	灌水ポンプ・小型	高砂鉄工CP-50	1	
	スプリンクラー	東洋スプリンクラー-菜園5エーカー用	1	
	複写機(乾式)	リコーPT510	1	写りが悪い
	シ ー プ	三菱	4	BARI...1台、インシュルディ...1台 専門家...2台、(15万Km以上走行)
	電気冷蔵庫	日立R-480H	2	
	台 秤	50kg用、感量20g	2	支場にて使用中
	直示天秤(ジュピター)	C3-200	1	
	上皿直示天秤(〃)	PT3-1200	1	
簡易土壌検定器	FHK3型、木屋364型	3		
53	マイクロトーム	竹田理化CM-38	1	ほとんど使用せず
	マイクロトーム研磨機	220V、50HZ、20Wモーター×2	1	〃
	上皿電子天秤	竹田理化GD-2000	1	
	カラーアナライザー	東京フォトエレクトリック Co., Ltd. 220V、50HZ	1	
	万能顕微鏡	オリンパスVANOX-AHB-2	1	高度すぎる
	低温恒温恒湿器	竹田理化SLH3-8	1	湿球・乾球各1、温度調節器-50℃~100℃不良のため作動せず。

供与年度	供与機材名	仕 様	現有数	利用管理状況に関する特記事項
	超低温槽	池本理化1428	1	使用せず
	恒温恒湿器	池本理化1413-SP	1	
	自動葉面積計	林電工AAC-400	1	
	トレンチャー	川辺農研TFC-250WL	1	
	ダンプカー(2トン)	三菱T210CD	1	
	ドーザーショベル	久保田KD-15	1	キャタピラー不良(58年度予算で購入予定)
	クリーンベンチ	竹田理化BGB-1300S	1	
	製むしろ機	東洋企業	1	この1年間全く使用せず
	蛇腹倉庫	太陽工業	1	
	微気象測定セット	飯尾電気	1	記録計は横川電気製、パネル交換必要
	土壌圧膜装置	木屋356-B	1	あまり使用せず
	遠心器	国産H-103RS	1	
	土壌加圧板装置	木屋356-C	1	あまり使用せず
	倒立顕微鏡	日本光学MTD	1	
	デシゲーター		10	
	乾燥器	熱風循環式50-200℃ 竹田理化0-80F	1	
	定温器	室温~60℃ 竹田理化1-80S	1	
	三眼実体顕微鏡	6.3~80倍 オリンパスSZ-TR-2	1	
	顕微鏡写真装置	オリンパス PM-10 M	1	
	純水製造装置	5ℓ/1h 木屋5010-A	1	硬水には適さない。使用せず。
	直示天秤	10mg 竹田LU-T1100	1	
	気象観測器セット	竹田3-1640	1	屋外に設置
	ボトルキャビネット	ステンレス 竹田RC-30	6	
	環境調節装置	小糸HNL-35AEX型	1	オムロン製タイマーSTP-N 2ヶ交換の必要有り
	変圧器	竹田 S-240-80	10	3台は使用せず
	AS樹脂製ケース	池田理化	10	2台イシュルディ、2台ロングブルー
	万能工具	富士平工業 13点	2組	
	特殊耐火保管庫	竹田SW-500	1	劇毒物の保管に使用
	オートクレーブ注射器用	竹田 HP-15	1	イシュルディ支場で使用
	自記温湿度計	竹田理化 7日巻	2	
	園芸用パイプハウス資材	シマノ工業	3棟	
	温風暖房機	ネボン(株) HK-75-S-1	2台	使用せず
	土壌実容積測定機	木屋 ㊦331	1	
	土柱法キット	木屋 ㊦356-D	2式	
	テンションメーター	木屋 ㊦345-E	6	
	散粉粒機	有光工業(株)HD-4	1	

供与年度	供与機材名	仕 様	現有数	利用管理状況に関する特記事項
54	背のり半自動噴霧機	有光工業(株)SK-10S	1	
	土壌消毒注入機	〃 HS	1	使用せず
	蒸発散量測定装置	大起理化工業(株)	1	
	発 電 機	本田技研工業(株)E-2500E	1	アクバプールにて使用
	電気水質計	東邦電探(株)EST-3型	1	使用せず
	塩分検出計	〃 EST-5型	1	使用せず
	シリンダーインターケ レート測定器	木屋(株)	1	使用せず
	発 電 機	デンヨーDCA-20SPG	1	
	プレハブ庫	太陽工業	1	第2圃場に設置
	乾式複写機	リコーP500	1	故障中(ローラー根)
	耕 転 機	ヤンマーYZC×ES-105C	1	
	動力噴霧器	久保田SD30-6ED	3	各サブセンターにて使用中
	組織培養器具一式	RK1-1101	1	
	土壌殺菌釜	平山 MCD-1	1	空焚きのためヒータータンク、電 源ボックス部修理不能
	マイクロバス	日産 54ZGHQC340WUC	1	
	スライド映写機	エルモ AS-3000A	1	
	謄写輪転機	リコーMODEL E-80	1	
	卓上計算機	カシオ F-3 16桁	5	
	全自動背負式スプレーヤー	クボタ BS-114	3	
	苗床用ハンスプレーヤー	クボタ BS-103	3	
	タイムスイッチ	サンヨーFT7800	4	オーディオ用であり、実験用とし ては不適當
	マグネチックスターター	MRK-14-23型	1	
	パラフィン溶融器	木屋3510-A	1	イシュルディ支場にて使用中
	パラフィン伸展器	木屋3550	1	
	万能攪拌器	木屋4310-B	1	
	真空ポンプ	RK1-4102-C-2	1	
	P H 計	東亜電波HM-5ES	2	
	水素イオン濃度比色測定器	東亜電波RKI-3041 A号	1	
	窒素蒸溜器 200ml	木屋 №404	2	
	窒素分解装置 200ml	木屋 №405	1	不 調
	遠心機用円筒	RK1-8933	100本	
	蒸留水製造装置 5ℓ/h	いすず製作所 WDA-15S	1	ガス用に修理して使用中
糖 度 計	手持屈折計 N-10-32%	5		
全自動背負噴霧器	手動 2頭口付	2		
携帯用クーラー	25×44×32cm	1		

供与年度	供与機材名	仕 様	現有数	利用管理状況に関する特記事項
55	果汁酸度計	FS-2、0~10%	3	
	園芸照度計	DM-28型	2	
	土壌酸度検定器	DM-5、35-80PH	1	
	土壌栄養診断器	柳田式	1	
	土壌検定器	改良300型	1	
	赤外線水分計		1	
	除 湿 機	日立RD-2004F	3	
	発 電 機	デンヨーDCA-15ST	1	使用せず
	自動電圧調整装置	松永 SVC2050	2	
	ミスト発生器	エイワスブリンクラ	1	
	小型トラクター	久保田 L2201RFX	2	
	テ ー ラ ー	久保田 K-120	4	
	フォーレージハーベスター	久保田 FH102	1	あまり使用せず
	複 写 機	リコーDT1500	2	
	電話受話器	石渡電話 TA-MK-10	1	高度な機器であり設置に特殊技能を要するため設置できていない
	ミュージックサイレンセット	東亜特殊電機	1	設置したが停電が多く、時刻を合わせても意味がない
	ステーション・ワゴン	トヨタLS110RG-SWKBSRHD	2	走行キロリ(20,000Km/年)
	ピックアップ	トヨタRK110R-KRP, RHD	2	ロングブール支場とアクゾブールに配置
	赤外線水分計	木屋 1900-A(5号)	1	イシュルディ支場に配置
	揚水ポンプ	トーカイQP-SS-30TD-E2	2	1台はイシュルディ支場に配置
誘 蛾 灯	池田理化MT-2(旧型)	3	イシュルディ支場に配置	
映写機(スクリーン付)	エルモ16mm(16-CL-MO)	1	フィルムが無いため使用せず	
	上記以外の55年度供与機材は、供与機材リスト(JICA・農開・畜開版)参照			
56	56年度供与機材は、昭和58年4月に引き取られたが、以下の点に問題があった。			
	ビニールハウス	A-3型、3坪用	10棟	ビニールがなく使用不可
	農電ケーブル	φ2-500	20巻	陸揚後、盗難にあった模様
	農電サーモスタット	φ 530	10個	
	農電バインド線	亜鉛 #18, φ2m/m	10束	
	種子ソール機	セルフN-102HP(先進工業)	1	破 損
	(現地調達分)			
	オートバイ	スズキ80CC	5	1台は、ロングブール支場
	冷 蔵 庫	中国製	3	ロングブール支場(1台) イシュルディ支場(1台)

供与年度	供与機材名	仕 様	現有数	利用管理状況に関する特記事項
57	深井戸用ポンプ	ヤンマー	2	ロングプール支場に設置
	57年度供与機材は、昭和58年8月に引き取られ以下の点に問題があった。			
	収 穫 袋	タキ180×50cm	500袋	紛失
	初 消 毒 袋	タキ140×65cm	2箱	1箱紛失
	ウォーターポンプ	クボタ 厩16-1533	1	コントロールパネルのガラス破損
	(現地調達分)			
	スライドプロジェクター		1	
	オーバーヘッドプロジェクター		1	

注) 使用せず : 倉庫等に保管または、実験室内等に放置

ほとんど使用せず : 年に1~2回使用

あまり使用せず : 年に3~11回使用

VI-5. セミナー参加者一覧

エバリュエーションチーム訪バ中に、志村団長（演題：日本における野菜栽培の現状）および岩垣団員（演題：日本におけるかんきつ栽培の現状）を演者として、BARI主催によるセミナーが開催された。セミナーは、BARI、Potato Research CenterのDirectorであるDr. KAMAL UDDIN AHMADの司会で行われ、バングラデシュ側の参加者は以下の通りであった。

プロジェクトの現地における広報活動として、この種のセミナーや、ワークショップは有意義と思われる。

参加者氏名	職位
1. Mr. A.M. ABDULLAH	P.S.O. (CVSRC)
2. Mr. A. RAZZAQUE	P.S.O. & Head ,CVSRC
3. MR. M.A. KHALEQU	Project Director(Oil seeds), BARI
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5. Mr. Hamizuddin Ahmed	Head, Plant Pathology Division, BARI
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7. Dr. M.M. RASHID	Head , Horticulture Division, BARI
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14. Mr. MD. MUSHARRAF HOSSAIN	M.Sc. Ag. Student in Horticulture
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40. Mr. A.T.M. BEDSNL AHSAN	S.O. (Soil feasibility)
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42. Mr. MD. HAMID RAHMAN	P.S.O. (On farm Research Div.)

VI-6. 昭和58年7月31日付 バングラデシュ側エバリュエーションレポート

本調査団訪中にバングラデシュ側から提出されたバングラデシュ側による本プロジェクトのエバリュエーションレポートである。

同様なレポートは昭和58年5月31日にも作成された(昭和57年度巡回指導チーム報告書巻末参照)。

AN EVALUATION REPORT ON
THE CITRUS AND VEGETABLE SEED RESEARCH CENTRE
(1982 - 83)

BANGLADESH AGRICULTURAL RESEARCH INSTITUTE
JOYDEBFUR, DHAQA

JULY 31, 1983

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Member

Mr. Abdur Razzaque
Mr. Abdur Razzaque
Head of Citrus and
Vegetable Seed Research Ce:
Member-Secretary

EVALUATION REPORT ON THE CITRUS AND VEGETABLE SEED
RESEARCH CENTRE, BARI, JOYDEBPUR, DHAKA FOR THE
YEAR 1982 - 1983

Introduction

The Citrus and Vegetable Seed Research Centre is an on-going development project sponsored by the Bangladesh Agricultural Research Institute with Japanese Assistance. The first phase of the project started in September, 1977 when it was approved for a period of 4 years at an estimated cost of Tk. 19.52m including foreign exchange component (FEC) of Tk. 9.92m. The entire amount of FEC was expected to be provided by the Government of Japan for which the first Record of Discussion was signed on 3 November, 1977 for a period of 3 years between the Government of Bangladesh and Japan. The scheme envisaged establishment of one main centre at Joydebpur and three sub-centre at Jaintiapur, Ishardi and Mahigonj. In the first Five-Year-Plan period, it was possible to develop physical facilities only at the main centre at Joydebpur. So in the first Joint Committee Meeting held on 22 November, 1979 it was resolved that the development of physical facilities at the sub-centres should get priority in the Second Five-Year Plan and the scope for research activity should be further extended. In the meanwhile, the Government of Japan also agreed to extend their co-operation in this project and accordingly the Second Record of Discussion was signed on 3 November, 1980 for a further period of 3 years. The scheme was revised under the title "Scheme for strengthening of the on-going Citrus and Vegetable Seed Research Centre and establishment of one regional station at Akbarpur, Sylhet and a new sub-centre at Fahartoli, Chittagong." In this scheme, the sub-centre at Jaintiapur was proposed to be merged with the regional station at Akbarpur.

The scheme was approved for the S.F.Y.F. period by the JICA in their meeting held on 23 July, 1981 at an estimated cost of Tk.42.40m with a FEC component of 20.455m. The entire FEC is expected to be received as grant from the Government of Japan. In the Second Record of Discussion, the Government of Japan provided only technical assistance such as machinery and equipment, consultancy services and books and journals worth Tk. 8.50m. Subsequently, the Government of Bangladesh formally requested the Government of Japan for the balance of Tk. 13.955m to develop physical facilities, e.g. functional building, internal roads, fencing, land development etc. at the regional station, Akbarpur and 3 other sub-centres at Mahigonj, Pahartoli and Ishurdi. The request is yet to be materialized.

Constitution of the Evaluation Committee

To evaluate the activities of the project for the year 1982-83 and accordingly suggest possible extension of the project beyond 2 November, 1983, Joint Committee in its 5th meeting held on 6 April, 1983, constituted an evaluation committee (minutes and relevant papers are enclosed in appendix A & B) consisting of the following members:

1. Dr. Mohammad H. Mondal
Associate Director(Res.), BARI - Convenor
2. Mr. M. Abdul Mumin
Deputy Chief, Agril. Division,
Planning Commission - Member
3. Mr. M. Saiful Hogue
Deputy Chief, ERD
Ministry of Finance & Planning - Member
4. Mr. Md. Abdus Saboor, Director in-charge
Implementation, Monitoring and
Evaluation Division - Member
5. Dr. Abdul Jalil Mia
Section Chief (P&M wing)
Agril. and Forest Division
Ministry of Agriculture - Member
6. Dr. Mafizul Haque Khan,
P.S.O. (Crops), BARC, - Member
7. Mr. Abdur Razzaque, Head,
Citrus & Veg. Research Centre,
BARI. - Member-Secretary

Terms of Reference for the Committee

- To evaluate the various activities of the project for the year 1982-83
- To suggest possible extension of the project beyond 2 November, 1983
- To suggest strategies for the development of physical facilities at the regional station and three sub-centres of the project.

The first meeting of the evaluation team was held on 5 June, 1983 and the second meeting on 5 July, 1983 in the City Office of BARI, Dhaka. The third meeting was held on 30 July, 1983 in the conference room of the project at Joydebpur. In these meetings the members of the evaluation committee closely reviewed the scheme in terms of investment, technical and physical progress and the future programme of the project. The status of project aid utilization, problems associated with it and further need of assistance were also discussed in detail.

Objective of the scheme

The broad objective of the scheme is to serve as a strong national citrus and vegetable seed research centre through a wide spectrum of applied and adaptive research on citrus fruits and vegetables.

Specific objectives of the scheme are as follows:

Technical (research)

- to develop high yielding, disease resistant, widely adapted varieties of both sweet and sour pulp citrus fruits and vegetable such as radish, eggplant, watermelon and leafy vegetables.
- to concentrate research on seed production techniques, fertilizer requirement, water use and disease and pest control in both citrus fruits and vegetables.
- to impart in-service training to workers, organize workshops/seminars and field days to disseminate new technology generated from the project
- to publish the research findings in non-technical language for the benefit of the growers and extension workers.

Work Plan for 1982 - 83

a. Research

Vegetables:

1. Regional demonstration trial of newly evolved 'Tasaki San Mula' along with local and exotic radish cultivars.
2. Studies on the physio-morphological characters and performance of introduced pure-bred radish cultivars.
3. Selection of superior maternal lines of cabbage in order to evolve a new cabbage cultivar having ability to produce seeds under field condition.
4. Regional demonstration trial of 'Gima Kalmi' a newly evolved leafy vegetable for summer.
5. A study on the foliage and bulb yield and performance.
6. Regional demonstration trial of 'Barpata Piaz' - newly selected leafy onion for summer.
7. Studies on the physio-morphological characteristics and performance of different exotic and local cultivars/lines of egg plant.
8. Studies on the screening of eggplant germplasm against bacterial wilt caused by Pseudomonas solanaceum
9. Studies on the comparative susceptibility of different eggplant cultivars against egg plant shoot and fruit borer and its seasonal abundance and control the same by mechanical and chemical means.
10. Studies on the requirement of cultural practices for seed production of egg plant.
11. Demonstration trial of 'Saisak' and 'Gikar Sak' - two newly selected introduced leafy vegetables for summer.
12. Studies on the physio-morphological characters and performance of different exotic and local germplasm of pure-bred water melon cultivars.
13. Effect of shoot tip clipping at different stages of growth of Indian spinach(pui sak).

Citrus:

1. Evaluation of local and exotic cultivars of different groups of citrus fruits.
2. Collection and Introduction of various Citrus species from home and abroad.
3. Evaluation of performance of different local and exotic citrus cultivars on pummelo rootstock.
4. Effect of chemical fertilizer and organic manure on the growth and yield of Elachi lemon.
5. Studies to find out suitable rootstock for different groups of citrus.
6. Studies on the incidence of pest and diseases and their seasonal abundance on different citrus cultivars.
7. Studies on the effect of pummelo seed size on viability and seedling vigour.

Other fruits:

1. Evaluation of the performance of 'Kazi Tiara' - a newly selected guava cultivar.
- b. Physical
- to construct laboratory-cum-office building, godown, implement shed and some residential quarters for the 3 sub-centres (Ishardi, Mahigonj, Pahartoli) and one regional station at an estimated cost of Tk. 11.33 (of this, Tk. 9.45 was expected to be obtained from Japanese Government as grant).
 - to develop land, construct internal roads and fencing for the sub-centres and the regional station at Tk. 4.00 to be provided by Japan as grant.
 - to procure necessary laboratory equipment and farm machinery worth Tk. 5.5m for the regional station and three sub-centres with Japanese assistance.
 - to develop manpower through overseas training (one M.S. for 24 months, 5 short term training each for 3-6 months and one study tour for four weeks and organize training programme for citrus and vegetable growers and extension workers.

Progress Achieved

a. Research

Vegetables:

Radish : One radish cultivar developed at this centre was put to regional demonstration trial at Joydebpur, Ishurdi and Mahigonj (Rangpur). This was evaluated by the Technical Committee of the National Seed Board (N.S.B). The cultivar matures in 45-55 days yielding 25-30 tons per hectare. Unlike imported Japanese hybrid varieties, now commercially cultivated in the country, this newly developed variety produces seeds under field condition. It has been released under the name "Tasaki San Dala" through the National Seed Board.

Sixty three pure bred radish cultivars were also evaluated as per desired criteria to identify superior maternal lines.

Cabbage: A cabbage line which is capable of producing seeds under field condition has been identified and put to evaluation and demonstration trial along with imported Japanese hybrid cultivars. This line is found to be as good as standard varieties in respect of yield and quality. This has been evaluated by the Technical Committee of the National Seed Board and is expected to be released as a new cultivar in 1984.

Gina Kalmi: Gina Kalmi - newly developed cultivar or Kangkong suitable for summer cultivation was put to demonstration trial at Joydebpur, Ishurdi and Mahigonj. It was evaluated by the Technical Committee of the National Seed Board and recently released through the National Seed Board. It matures in 30-40 days and yields upto 50 tons/ha.

Leafy Onion: A quick growing (30 days maturity) cultivar of onion suitable for the rainy season has been developed. It will be released in 1984 as a new crop for the farmers. Its yield is about 20 tons/ha.

Egg Plants: A few promising lines have been identified out of germplasm of 78 collected from within and outside the country. Of these, pusha purple long, pusha kanti and Khatkhatia were found tolerant to fruit and shoot borer, and Khatkhatia Long, DMP and Taiwan Naga to bacterial wilt.

Studies on the requirement of cultural practices for seed production of eggplant has been initiated and will be continued to formulate recommendation.

Saisak and Gikursak: The leafy vegetables suitable for rainy season, were selected out of the superior maternal lines of Saishin and Kuroba respectively. These were put into demonstration trial and evaluated by the Technical Committee of the National Seed Board. Saisak matures in 30-35 days and yields about 35 tons/ha. Gikursak matures in 50-60 days and yields about 26 tons/ha. These are awaiting release by the National Seed Board.

Watermelon: An attempt to develop open pollinated varieties of watermelon to replace the imported hybrid ones is underway. To achieve this objective, 65 exotic varieties are being screened for yield, quality, adaptability and against fusarium wilt.

Indian Spinach(Puisak): A technique whereby the yield of the crop can be increased 2-3 times has been evolved. The technique involves clipping shoot tip at 10-leaf stage.

Citrus:

Evaluation of Citrus cultivars grafted on trifoliate root stock :

Out of 35 mandarin, 21 sweet orange, 30 pummelo, 10 hybrids, 8 lime and lemon, and 6 citrus rootstocks cultivars introduced at the main centre, 18 mandarin, 11 sweet orange, 14 pummelo and 3 lemon cultivars were evaluated with respect to morphological and reproductive characters. The result so far obtained indicates that Mihowase(mandarin), Anseikan(pummelo), Kin'ummel (sweet orange) and Lisbon lemon have better chance of selection in Bangladesh condition.

Collection and Introduction of new cultivars: An attempt was made to collect more citrus cultivars from the U.S.A. Japan, India, China, Taiwan and Brazil. It has been possible to collect and introduce as many as 5 mandarin, 3 sweet orange, 1 lime, and 8 rootstock cultivars from these sources. These are now being multiplied for planting and evaluation.

Evaluation of citrus cultivars grafted on local pummelo rootstock: Six lime and lemon, 17 pummelo and 10 mandarin cultivars were grafted on pummelo rootstock and planted in the field in a Completely Randomized Design. The growth of the saplings are found to be encouraging. However, this study will be continued for evaluation.

Effect of chemical fertilizer on Elachi lemon: The preliminary result obtained from this study indicates best performance by the use of NPK fertilizers in combination. The study is being continued to formulate a recommended dose.

Studies to find out suitable rootstock: Eight scion cultivars of different citrus groups were grafted on six different rootstocks in all combination. The saplings have been planted in the field. The study will continue.

Studies on pest and diseases: Twenty three destructive insect pest were recorded in 116 different citrus cultivars belonging to 5 citrus groups. Four insects, namely, citrus leaf miner, lemon butterfly, Butterfly and Florida red scale were identified as major pest. These insects were then divided into three groups according to their feeding habits in order to facilitate study of control measure. Seasonal abundance of the major insects was recorded.

So far seven diseases were recorded in 29 cultivars representing three citrus groups, namely, mandarin, sweet orange, and lime and lemon. Of these, three diseases such as die-back, Citrus canker and gummosis were identified as major diseases. Seasonal abundance of these diseases was recorded.

Seed size on viability and seedling vigour: Seeds from local pummelo were extracted and grouped into 5 grades according to L/B ratio, per seed weight (mg), volume per seed (cm³) and number of seeds per litre. It was observed that smaller seeds failed to germinate or gave very poor germination but larger seeds germinated 75-87%. Seedlings from these larger seeds were found to produce stronger seedlings.

Other fruits:

Evaluation of Kazi Tigra : This is a new selection of guava cultivar. The mean weight of fruit is 317g; each fruit on an average contains 370 soft seeds weighing less than 6g. Fruits are crispy and very palatable. It is capable of producing fruit throughout the year. It is now being processed for release.

Miscellaneous:

Field Day, training and workshop: A Field Day was organised on 6 January, 1983 which was attended by 50 growers of 4 thanas of Dhaka district and 30 extension officers. Training was imparted to extension workers time to time at CERDI, Joydebpur, Dhaka and at the Regional Agril. Research Station at Hathazari and Ishurdi. A workshop for the Citrus growers was also conducted at the RARS, Ishurdi.

b. Physical, station wise

A formal request for project aid of Tk. 13.955m was submitted on December, 1981 to the Govt. of Japan to develop the physical facilities at the regional station at Akbarpur and sub-centres. But no response has yet been received from the Japanese Govt. The break-up of the amount of Tk. 13.955m is given below:

<u>Physical facilities</u>	<u>Amount (n. taka)</u>
1. Functional building	6.00
2. Residential building	3.445
3. Internal roads	1.000
4. Fencing	2.500
5. Land development	1.000
<u>Total=</u>	<u>Taka = 13.955 n.</u>

- i. Main centre at Joydebpur
 - The construction of second research building as stipulated for the 2nd phase could not be taken up due to non-availability of Japanese grant assistance.
 - Replacement of such laboratory equipment and farm machinery and procurement of spare parts as envisaged in the 2nd phase was obtained through Japanese grant assistance.
- ii. Sub-centre at Mahigonj, Rangpur
 - The construction of functional-cum-research building as envisaged in the first and second phase of the project could not be done as Japanese assistance was not available.
 - The land development work as proposed in the 2nd phase of the project including installation of irrigation facilities and construction of pucca channels was completed through Japanese assistance.
 - Procurement of laboratory and field equipment as stipulated in the 2nd phase could not be done due to non-availability of Japanese assistance.
- iii. Sub-centres at Ishurdi, Pabna
 - Plan and estimate of land development work of the citrus block at Ishurdi were sent to the JICA for grant assistance. It is expected that the work will be taken-up within the next few months.
 - Construction of godown and procurement of laboratory equipment and farm machinery as proposed in the 2nd phase of the project could not be initiated due to the non-availability of Japanese assistance.
- iv. Sub-centre at Pahartoli, Chittagong.
 - Construction of functional building and other related structures and land development, fencing and procurement of laboratory equipment and farm machinery could not be taken up as grant from the Japanese Government has not yet been received.
- v. Regional station at Akbarpur, Sylhet.
 - Construction of functional building, internal road, fencing and procurement of equipment and machinery could not be taken up as the assistance from the Government of Japan was not available.

- Construction of boundary fence about 1300 rft. along the front side of the farm was done with local fund.

c. Financial

To implement the project objectives, the following financial investment was made.

Heads	Scheme provision			ADP provision			Actual expenditure		
	1980-81	1981-82	1982-83	1980-81	1981-82	1982-83	1980-81	1981-82	1982-83
Local Currency									
Salary & allowances	7.31	7.76	8.11				4.01	4.51	6.09
Contingences	6.95	8.80	9.26	10.00	15.00	12.28	5.03	8.09	6.19
Capital (GDST)	68.13	37.15	30.00	15.00	7.00	34.72	20.00	43.65	34.72
Project Aid	110.63	79.92	21.00	100.00	50.00	150.00	57.42	9.92	24.67

d. Equipment and machinery

The following equipment and machinery were procured during 1982-83 for the main centre.

Venyl House	- 2 nos	Duplo fax	- 2 nos
Rear Car	- 8 pcs.	Seed Thrasher	- 2 nos
Embryo transplanting Instrument set	- 2 "	Refrigerator	- 4
Seed sealing machine	- 1 pc.	Electric type-writer machine	- 1
Kurolin machine	- 20 pcs.	Electric washing-machine	- 1

e. Training

-To build up necessary manpower to realise the project objective, the following training programme was proposed and realised in 1982-83.

Training	Scheme provision	As per Record of Discussion
M. S. (24 months)	1	nil
Short term (3-6 months)	5	2
Study tour (1 month)	3	1

Two scientists were sent to Japan under the counterpart short-term programme in 1982-83. The study tour that is meant for senior scientists is in process.

To disseminate technology, a short training programme was organized at the regional station, Ishurdi, Pabna and the sub-centre at Mahigonj, Rangpur for the citrus and vegetable growers on production technique.

f. Personnel Status

The following table will show the present status of technical manpower under the scheme.

Personnel	Scheme provision	Recruited	Now in position
Principal Scientific Officer*	4	1	3
Senior Scientific Office	8	6	8
Scientific Officer*	9	-	1

g. Publications:

- Annual report for the year 1981-82 has been published. Besides, leaflets on Tasaki San Mula and Gima Kalmi are now in press. Annual report for the year 1982-83 is under preparation.

Bottlenecks

- Fund provision under CDST in ADP was found inadequate due to increase in custom rates. This caused delay in releasing materials received under Japanese grant from Chittagong Port.
- Since there was no provision for degree programme, it has not been possible to build up manpower with leadership capability that is so vital in giving guidance to the scientists of the project.
- Even though there was provision of funds in the scheme for the development of regional sub-centres, no funds were available for such purpose.

Future programme

Vegetable:

- Development of high yielding, disease resistant and early and late varieties of eggplant and cabbage suitable for different agro-climatic zones of the country.

- Development of high yield, open pollinated and photoinsensitive radish varieties with ability to produce seeds under the climate of Bangladesh.
- Development of high yielding and open pollinated varieties of watermelon.
- Development of varieties of rainy season leafy vegetables and appropriate techniques for their seed production.
- Studies on the development of appropriate seed production, seed processing and storage techniques of selected cultivars of major vegetables.

Citrus fruits:

- Collection and evaluation of both local and exotic germplasms to develop high yielding, regular bearing and quality varieties with wider adaptations.
- Selection of suitable root-stocks for different citrus species, suitable for both plains and high lands and the performance of different lines of citrus grafted on these root-stocks.
- Development of appropriate nursery techniques for propagation of different citrus species.
- Development of management practices of citrus plantation for both hills and plains
- Screening of local and exotic citrus cultivars against major diseases and pests.

Recommendation

- To sustain the present tempo of research of the project and make better use of physical facilities developed at the central station at Joydebpur essential physical facilities, e.g. construction of office-cum-laborator residential accommodation and land levelling at the regional station and sub-centres should be developed immediately.
- To balance the present training programme in citrus and vegetable research, short-term training facilities in areas like breeding, seed production and seed storage in vegetables and breeding and propagation of fruit crops should be included in the revised phase of the project.

- To provide leadership to the project and strengthen various research programme, there should be provision in the project for long-term training facility leading to M.S. and Ph. D. degrees in breeding, seed production and seed storage areas of vegetables, and breeding and propagation aspects of citrus fruits.
- To balance out the services of the expatriate scientists, the project should have a provision for long-term experts in breeding and seed production in vegetables.
- To maintain the continuity in research and achieve further progress in vegetables and desired results in perennial fruit crops, grant assistance may be provided upto June, 1985 to support the on-going approved scheme and the Record of Discussion for technical assistance be extended for another five years beyond November 2, 1983.

Appendix - A.

EXTRACT TAKEN FROM THE PROCEEDINGS OF THE FIFTH
MEETING OF THE JOINT COMMITTEE HELD WEDNESDAY,
6 APRIL, 1983 IN THE CONFERENCE ROOM OF BARC,
FARM GATE, DHAKA.

Extension of Record of Discussion.

Mr. Murakoshi, the Resident Representative of JICA, speaking on the subject told that a formal request be sent to the Embassy of Japan for consideration. Without any formal request they can not take any action in this matter. He also said that it has already become very late. It was, therefore, decided to send a formal request immediately through the Ministry and ERD with copies to Mr. Murakoshi and the Team Leader for early action. The Chairman advised the P.S.O. (C&V) to do in no time. In this context the question of evaluation of the Project came under discussion, because any proposal for extension of Record of Discussion will require evaluation. The Member-Secretary informed that the Scheme has been evaluated in May, 1982. The Chairman however advised the P.S.O. (C&V) to get it evaluated again by the said committee which will help extending the Record of Discussion.

Sd/- Abdur Razzaque,
21.4.83.

Member-Secretary
Joint Committee

&

Principal Scientific Officer(C&V)
Citrus and Vegetable Seed Research Centre
Joydebpur, Dhaka.

VI-7. 第2回～第5回 合同委員会議事録

これまで行われた合同委員会（5回）の議事録を収録する。なお、第1回（昭和54年11月22日実施）の議事録は昭和54年度巡回指導チーム報告書（昭和55年4月）の巻末に収録した。

Proceedings of the [2nd] meeting of the Joint Committee of Citrus and Vegetable Seed Research Centre (CVSRC) under Bangladesh Agricultural Research Institute, Joydebpur, Dacca held on 26.5.80 in the Conference Room of the Project at Joydebpur, Dacca.

As provided in the agreement, meeting of the Joint Committee consisting of the concerned Japanese side and Bangladesh side are to be held from time to time to review the progress, bottlenecks etc. of the scheme. The Second Meeting was held on 26.5.80 under the chairmanship of Dr. M. Ishaque, Joint Secretary, Ministry of Agriculture and Forests and Chairman of the Joint Committee.

The following were present:

a) Japanese side.

1. Dr. S. Iwasa	Team Leader, Japanese Expert Team CVSRC.	Member
2. Mr. T. Ohsui	First Secretary, Embassy of Japan	Member (as observer)
3. Mr. H. Tanaka	Resident Represent- ative, JICA	Member
4. Dr. S. Nakata	Team Leader, Japanese Expert Team CERDI.	Member
5. Mr. S. Tasaki	Vegetable Expert, CVSRC	Member
6. Mr. Y. Kodera	Citrus Expert, CVSRC	Member
7. Dr. H. Daito	Citrus Pathologist	Member
8. Mr. T. Kitajima	Co-ordinator, CVSRC	Member

b) Bangladesh side

1. Dr. M. Ishaque	Joint Secretary, Ministry of Agriculture and Forests	Chairman, Joint Committee
2. Dr. Ekramul Ahsan	Member Director, BARC	Member
3. Dr. M.M. Rashid	Head, Horticulture Division, BARI.	Member
4. Mr. Abdur Razzaque	P.S.O. (C & V)	Member- Secretary

--: (2) :-

The Japanese Evaluation Team for the scheme was visiting Dacca at the time and they were invited to attend the meeting as observer, they were:

- | | |
|--------------------|--|
| 1. Mr. Y. Sugawara | Team Leader, Japanese Evaluation Team |
| 2. Mr. S. Aihara | Member, Japanese Evaluation Team |
| 3. Mr. Adachi | Co-ordinator, Japanese Evaluation Team |
| 4. Mr. Ishizaki | Member, Japanese Evaluation Team |
| 5. Mr. Iwagaki | Member, Japanese Evaluation Team |

The following members of the Bangladesh side, (i) Executive Director, Horticulture Development Board, (ii) Mr. M.A. Mumin, Deputy Chief, Agriculture Division, Planning Commission (iii) Dr. Akbar Hossain, Professor of Horticulture, Bangladesh Agricultural University could not attend due to unavoidable other occupation at the time.

In the Bangladesh side Mr. A. Ahad Miah, S.S.O. (Vegetable) working in the Project also attended on invitation.

Agendum No.1

Confirmation of the proceedings of the previous meeting.

The Member-Secretary reported that the proceedings of the 1st Joint Committee Meeting held on 22.11.79 were circulated to the members after the meeting and no comments were received. The Chairman asked the members if they had any comments on the recording of the proceedings as none of them had any comment to offer the proceedings were signed.

The Chairman suggested that, in future, as agendum No.2, an item should be included reporting follow-up actions on specific decisions of one meeting requiring such actions for appraisal and discussion in the following Joint Committee Meeting.

Agendum No.2

Evaluation of Work

Although the progress report of the work has been given in the working paper that has been circulated for the meeting the Chairman requested the Member-Secretary to briefly mention the salient points for the benefit of the members and observers present.

The Member Secretary informed that there was provision for 12 officers and 44 other staff in the project out of which post of 9 officers and 27 other staff had been filled in. The remaining three vacant post of officers had been advertised by the Director, BARI and expected to be filled up very soon.

The Joint Committee recommended that the vacant posts should be filled up immediately for the smooth running of work.

The Member-Secretary informed the Committee though there was provision in the scheme for providing some physical facilities at the sub-centre, no work has been done there except the appointment of some staff. He also mentioned that about 85% of development work for Joydebpur main centre has been completed. The Japanese side originally did not think about the sub-centre.

The remaining work of boundary fence and land development for citrus at the main centre are to be completed within June, 1981.

Dr. M.M. Rashid discussed ~~about~~ the importance of necessary equipment at the analytical laboratory which was not yet obtained and requested the Member-Secretary to include those article in the next indent. While the Member-Secretary assured that it would be done, he pointed out the difficulties in releasing the materials by paying the customs duties and sales tax etc. for the lack of sufficient provision of fund under capital head for the project during 1979-80 in the Annual Development Programme.

-: (4) :-

The Chairman advised the Member-Secretary for making adequate provision of fund during the current financial year.

2. With regard to the need of sub-centre development, the Chairman emphasised upon its importance and it was the opinion of the meeting (both Bangladesh side and the Japanese side) that the sub-centres should be developed as quickly as possible for the success of the project as a whole and Japanese assistance was very much needed and would be welcome.

Regarding the past research activities the Member-Secretary informed the Committee that a major part of the initial period was spent for the construction of physical facilities. The experts could not initiate their technical programme until the beginning of 1979. Two years time was too short for a programme of this nature. However, some research work had been done by this time on citrus and on certain vegetables as noted from page No.14 to 19 of the progress report.

The Joint Committee recommended that the scientists working in the project should devote themselves in the research fields according to the felt-need of the country.

Agendum No.3

Research Programme

The Chairman wanted to know the progress of long-term research programme which was supposed to be prepared by the Technical Programme Sub-Committees. The Member-Secretary informed that the research programmes on citrus as well as on vegetable prepared by the committees had been given in the working paper and were being followed.

Then the chairman wanted to know how far the survey work on different citrus fruits in Bangladesh had been done. The Member-Secretary informed the Committee that appropriate methodology had been developed in this connection. Due to paucity of fund under contingency and shortage of man-power in the project a supporting scheme had been submitted to BARC to conduct survey and collection of citrus species efficiently.

The Chairman emphasised the importance of study record about citrus fruits grown in the country. Mr. Razzaque informed the Committee that study records on certain citrus species available at Jaintiapur had already been made.

The Chairman advised the Member-Secretary to introduce different species of citrus from the neighbouring countries where similar agro-climatic condition existed. He also stressed on the introduction of short maturity varieties of sweet and mandarin oranges. He also told the meeting that collection of local germplasm specially of promising varieties from different places of the country should be made.

Regarding the root-stock trial, the Committee suggested to include pomelo as local root-stock with trifoliate orange and Yuzu introduced from Japan.

The Chairman raised the question whether any study on incidence and seasonal abundance of different diseases of citrus had been made. In reply to this Mr. A. Razzaque told the Committee that as Mr. A. Taher, the only pathologist of the Project, had left for Japan in March, 1980 for higher training for a period of 9 months so it could not be done upto the expectation. The Chairman wanted to know whether any methodology in this respect had been developed. The Member-Secretary informed that Mr. Taher had developed methodology before his departure for abroad. Mr. Ashraf Khan, S.S.O.; (Pathology) on deputation from Plant Pathology Division of BARI, had been working since April, 1980 on this line.

The Chairman advised the Member-Secretary to display the samples with different disease symptoms and insect damage of different citrus fruits with their causal organisms and methods of control in the laboratory which would be useful.

Regarding the vegetable research, the Chairman emphasised mainly on vegetable seed research as because there was a full fledged Horticulture Division to develop varieties, improvement of cultural practices etc. So he told the members of the Technical Programme Sub-Committee for Vegetables that while developing the research programme on vegetable, emphasis should be given on the method and technique of vegetable seed production. The research programme on vegetables already chalked out by the Technical Sub-Committee was considered too big for the limited number of scientists working in the project. The Joint Committee told that identification of local problems should be done first and then research work should be done.

Finally the Committee selected four kinds of vegetables, viz. eggplant, radish, watermelon and certain leafy vegetables grown during rainy season for research work under this project.

The research programmes on citrus and vegetables submitted by the Member-Secretary was prepared for three years. To make the programme more specific the Chairman told the committee to also prepare annual research programme within the frame work of the three-year-programme.

The Committee felt that the previous research activities should be reviewed before preparing the annual research programme.

The Chairman then wanted to know the foreign training programme of the scheme. The Member-Secretary informed that there was provision of 13 scientists to be trained in Japan. Six scientists were sent to Japan for higher training and they returned home with success. Two scientists had been sent to Japan in March, 1980 for 9 months-training. Besides the above, two scientists visited Japan in April, 1980 for two weeks under study tour programme. Necessary papers towards the nomination for the remaining scholarships had been sent to Japan through E.R.D.

Agendum No.4

Extension of Project aid

The matter of extension of technical co-operation and financial grant from the Government of Japan was discussed. The Member-Secretary told the meeting that the present Record of Discussion would expire on No.2, 1980. On the basis of the proposal sent by the Government of Bangladesh to the Government of Japan for extension of Technical Co-operation and Financial Grant the JICA sent one evaluation team consisting of 5 members who have visited different places and discussed with the project personnel. The members of the Evaluation Team also attended the joint committee meeting as observer. Considering the back-ground of the Record of Discussion and its aim, the Evaluation Team would report to the Government of Bangladesh and Japan. The Team during visits and discussions expressed their satisfaction reporting the progress and it may be assumed that they would recommend that the Technical Co-operation period should be extended for another three years after the expiry of present Record of Discussion.

Agendum No. 5

Revision of scheme for 2nd Five Year Plan.

Regarding the extension and revision of the scheme for the Second Five Year Plan the Member-Secretary informed that a scheme titled "Strengthening of the on-going Citrus and Vegetable Seed Research Centre and Establishment of a Regional Citrus and Vegetable Station at Akbarpur, Sylhet and a new centre at Pahartali, Chittagong" had been prepared at an estimated cost of Tk.468 lakh (F.B.C 240 lakh) and submitted to the Ministry of Agriculture and Forests for on-ward transmission.

The meeting ended with the vote of thanks to and from the Chairman.

Sd/- Dr. M. Ishaque,
Chairman
Joint Committee & Joint Secretary (Research)

Citrus and Vegetable Seed Research Centre
BARI, Joydebpur, Dacca.

PROCEEDINGS OF THE THIRD MEETING OF THE JOINT
COMMITTEE OF THE CITRUS AND VEGETABLE SEED
RESEARCH CENTRE, BARI, JOYDEBPUR, DACCA HELD
ON MONDAY, 6 JULY, 1981 IN THE CONFERENCE
ROOM OF THE PROJECT AT JOYDEBPUR, DACCA.

The third meeting of the Joint Committee of the Citrus and Vegetable Seed Research Centre (CVSRC) was held at 9 A.M. on Monday, 6 July, 1981 in the conference room of the project at Joydebpur, Dacca. In the beginning the meeting was being conducted by Dr. Ayubur Rahman, Assoc. Director, BARI but later on it was continued under the Chairmanship of Dr. Kazi M. Badruddoza, Director, BARI and Chairman of the Joint Committee.

The following members were present:

A. Japanese side

1. Mr. Shiro Aihara	Team Leader Japanese Expert Team CVSRC	Member
2. Mr. Seiko Tasaki	Vegetable Expert CVSRC	Member
3. Dr. Hiroshi Daito	Citrus Expert, CVSRC	Member
4. Mr. Takashi Nakagawa	Co-ordinator, CVSRC	Member
5. Mr. T. Morakoshi	Resident Representative JICA	Member
6. Mr. Keji Niino	First Secretary Embassy of Japan	AA observer

B. Bangladesh side

1. Dr. Kazi M. Badruddoza	Director, BARI	Chairman
2. Dr. Akbar Hussain	Professor and Head Dept. of Hort. BAU	Member
3. Dr. Ayubur Rahman	Assoc. Director (TCP) BARI	Attended on invitation
4. Dr. M. M. Rahman	Member-Director BARC	Member
5. Mr. Saiful Huq	Dy. Chief, ERD	Member
6. Dr. M. M. Rashid	Head Horticulture Division, BARI	Member
7. Executive Director H.D.B.	Represented by Mr. Saiful Huque, Director, H.D.B.	Member
8. Dr. A. K. M. Amzad Hossain	P.S.O. (C & V)	Member-Secretary

Dr. S. Nakata, Team Leader, Japanese Expert Team, CERDI and a member of this committee could not be present in this meeting because he was out of the country. The members from the Ministry of Agriculture and Forests and the Project Implementation Bureau did not attend the meeting. The honourable member, Mr. A. Mumin, from the Planning Commission could not attend the meeting due to certain preoccupations but he sent some information regarding the project. He appraised the members with the following information.

1. That the scheme has been approved by the PEC and is now awaiting approval of the ECNEC. There might be some delay in getting final approval since the cost of all such project are being rationalised by the Govt. which may take some more time.

2. That ADP provision for the project for the financial year 1981-82 is as follows (in lakh taka)

Project Aid	: Tk. 50.0
Revenue	: Tk. 15.0
Capital	: Tk. 35.0 including GDST Tk.5.0
Total	<u>Tk. 100.0</u>

3. That there will be no problem in releasing the fund as provided in the ADP for the project due to its unapproved status. In the Bangladesh side, Mr. A.M. Abdullah, P.S.O. (Citrus) and Mr. Abdul Ahad Miah, S.S.O. (Vegetable) working in the project attended the meeting on invitation. Mr. Shahabuddin Ahmed, Dy. Director, HDB also attended the meeting as observer.

Dr. A.K.M. Amzad Hossain, P.S.O. (C&V) and member-Secretary of the Joint Committee initiating the discussion welcomed all the members present and thanked them for attending this meeting inspite of their other important preoccupation. He also informed the house that due to an emergent meeting at the Bangabhavan, Dr. Kazi M. Badruddoza, Director, BARI and Chairman of this Committee will not be present in the meeting in the begining but he will join this meeting very soon. He then requested Dr. Ayubur Rahman, Assoc. Director (BARI) to conduct the meeting until the Chairman returns from Bangabhavan.

The member-secretary then proposed that before getting into business session, the meeting should observe one minute silence as a mark of respect to the departed soul of our late president Ziaur Rahman. All members stood up and observed one minute silence as propose.

The meeting then proceeded with the agenda.

Agendum - (1): Confirmation of the Proceedings of the Second Joint Committee Meeting held on 26 May, 1981.

The member-secretary reported that the proceedings of the Second Joint Committee Meeting held on 26 May, 1980 were circulated among the members in time and no comment was received from the members. The the members were asked if they had any comment on the recording of the proceedings. As none of them had any comment to offer, the proceedings were confirmed.

Agendum - (2): The Present Position of the New Scheme:

As the honourable member from the Planning Commission was not present and in view of the appraisal note with respect to the present position of the new scheme sent by him, there was no further discussion on the subject.

Agendum - (3): Filling up the Vacant Posts.

When this point came under discussion, Dr.M.M. Rahman pointed out that in the last meeting of the Joint Committee it was decided that the vacant posts be filled up immediately. He wanted to know what action was taken in this regard. In reply to this Dr. Ayubur Rahman informed the house that due to shortage of fund under revenue head the vacant posts under different

projects could not be filled up. He also informed that the government has provided sufficient fund under revenue head very recently and the vacant posts will be filled up soon by observing necessary formalities

Dr. Akbar Hossain wanted to know whether BARI gives special attention in filling up the vacant posts under this project where foreign experts are involved. He suggested that there should be one resolution to the effect that all the vacant posts of the counterparts be filled up immediately. Dr. M.M. Rahman also endorsed his proposal. Dr. Rahman further opined that unless the posts of counterparts are filled up immediately the services of the foreign experts can not be utilized properly. In this connection, the position of Mahigonj Sub-centre came under discussion where one foreign expert has already been despatched. But effective research work could not be taken up for want of counterpart.

However, it was resolved that the two vacant posts of Scientific Officers and two vacant posts of Senior Scientific Officers be filled up within next two months.

At this moment Dr. Lazi M. Badruddoza, Director, BARI and Chairman of the Committee joined the meeting.

Continuing the discussion on the above subject Dr. M.M. Rahman wanted to know the strength of the scientific personnel working at the headquarters at Joydebpur. Dr. Hossain informed that in the on-going scheme there is provision for one P.S.O.

(Project in-charge), one P.S.O.(Citrus), one S.S.O.(Vegetable) one S.S.O.(Pathology) and one S.O.(Statistics) for Joydebpur. The Committee considered the strength to be quite inadequate. The Chairman of the Committee, Dr. Kazi M. Badruddoza was also surprised to know that there is no provision of Scientific Officer in the project at Joydebpur. He suggested Dr. Hossain to enquire whether there is any vacant post of S.O. in the Statistics Section of BARI. If such a vacancy exists, in that case, the present incumbent Mr. Md. Altaf Hossain, Scientific Officer(Statistics) of this project may be transferred there and the post of S.O. (Statistics) of the project may be converted to S.O.(Vegetable) or S.O.(Citrus).

Agendum -(4): Sending of Trainees to Japan

Discussing on this point, one member pointed out that the persons nominated for training in Japan under the project are changed while processing through the Ministry. As an example to this it was informed that the name of Dr. M.M.Rashid nominated for study tour to Japan last year was dropped in the Ministry and the name of one Section Officer from the Ministry was forwarded to the Government of Japan.

However, the Chairman informed the Committee that this year he has authorised the Bangladeshi Scientists and the Japanese experts working in the project to sit together and select the candidates for training to Japan. The Chairman then wanted to know from the project officers whether they have selected candidates

for training in Japan for this year. He was informed that it has been already done and it is now awaiting his approval. The Chairman also wanted to know from the Japanese experts whether the selection was unanimous. Mr. S. Tasaki informed that it was fully agreed upon. Then one member wanted to know how the training offer on soil science came when there is no provision of such a training in the note of understanding. The Japanese side informed that it is actually a training offer on citrus production with emphasis on soil management.

Agendum - (6): Release of Materials from Chittagong Port.

When this problem came under discussion it was told that the delay in the release of materials was mainly due to inadequate provision of fund in the ADP. Even the allocated fund was not released in time which caused unusual delay in the release of materials from the Chittagong Port. Dr. Ayubur Rahman informed the Committee that a consignment of materials has arrived at the Chittagong Port in last February, the estimated CDST for this consignment is Tk. 39.0 lakh. The allocation under CDST during current financial year is only Tk. 5.0 lakh. However, Tk. 30.0 lakh under capital head may be reappropriated for this purpose for the release of these materials.

The member-secretary then proposed whether exemption of CDST on these grant materials is possible. But all the members including Mr. M. Saiful Haque opined that it may not be possible to get exemption of CDST on these materials from the NBR.

Agendum - (7): Establishment of Vegetable Seed Production System for Rainy Season Leafy Vegetable

Mr. S. Tasaki explained the objective and the utility for the establishment of a vegetable seed production system of rainy season leafy vegetables which are expected to be released soon. He also pointed out the problems and draw backs of the present system of commercial seed multiplication. Mr. Abdul Ahad Miah, S.S.O. (Vegetable) informed the Committee that some of the exotic rainy season leafy vegetables are in the pipe line and can be released as commercial variety soon.

The Chairman pointed out that besides presenting necessary information to the National Seed Board (NSB) for releasing a variety, its performance must be evaluated under field condition by an authorised team of the NSB. He suggested the project personnels to get this evaluation done under field condition by appropriate authority for the promising varieties expected to be released soon. He also opined that once the varieties are released by the NSB, some sort of liaison or working relationship can be established with the Vegetable Seed Production Division of BADC for the proper multiplication of these released variety. Project personnels can be involved in the inspection and supervision of such a seed multiplication programme.

Agendum - (8): Evaluation of Work done and Miscellaneous

On an enquiry from Dr. M.M. Rahman about the space of progress of research work compared to the physical facilities

available in the project, Dr. Hossain informed the committee that in four years life of the project, first two years were spent in building the physical facilities like construction of functional cum research building, irrigational facilities, land consolidation etc. In the third year research work was started. However, actual research work was done only last year. So, the progress of research work in his opinion is quite satisfactory.

Dr. M.M. Rahman again pointed out that while the project should work only in seed production side but from the Progress Report it seemed that emphasis is given on varietal improvement. Mr. S. Tasaki and Dr. M.M. Rashid, explained that research work has been taken up on vegetable seed production through breeding oriented program as because at present there is no standard variety of vegetable crop on which research work on seed technology can be taken up directly. They also informed that research work on seed production method are also being done with some vegetables.

The Chairman, Dr. Kazi M. Badruddoza, told the members that it is a special project which deals with a part of the total program of the Horticulture Division and this can be considered as a task force.

The meeting then ended with a vote of thanks to and from the Chair.

Sd/- Dr. Kazi M. Badruddoza
Chairman, Joint Committee
&
Director, BARI
Joydebpur, Dacca.

CITRUS AND VEGETABLE SEED RESEARCH CENTRE (CVSRC)
BARI, JOYDEBPUR, DACCA

Proceedings of the Fourth Meeting of the Joint Committee
held on Thursday, 28 January, 1982 in the Conference Room
of the CVSRC at Joydebpur, Dacca.

Dr. Kzai M. Badruddoza, Director, BARI and Chairman of the Joint Committee presided over the meeting. The following were present.

A. Japanese side

1. Mr. T. Murakoshi	Resident Representative JICA, Dacca	Member
2. Dr. T. Nishida	Fruit Tree Research Station MAAF, Japan.	On invitation
3. Mr. T. Hayase	JICA, TOKYO	On invitation
4. Mr. S. Aizawa	Team Leader, Japanese Expert Team, CVSRC.	Member
5. Dr. H. Daito	Citrus Expert, CVSRC	Member
6. Mr. S. Tasaki	Vegetable Expert, CVSRC	Member
7. Mr. T. Nakagawa	Coordinator, CVSRC	Member
8. Dr. S. Nakata	Team Leader, Japanese Team, CERDI.	Member

B. Bangladesh side

9. Dr. Kazi M. Badruddoza	Director, BARI	Chairman
10. Mr. M. Hossain	Assoc. Director(SS)	On invitation
11. Dr. M. H. Mondol	Assoc. Director(Res.)	On invitation
12. Mr. M. Saiful Haque	Dy. Chief, ERD	Member
13. Mr. M.A. Mumin	Dy. Chief, Agril. Div. Planning Commission	Member
14. Director, PIB	Represented by: Mr. Rabiul Hossain Addl. Director, PIB	Member
15. Executive Director	Represented by: Mr. Shahabuddin Ahmed Dy. Director, HDB	Member

8. Dr. M.M. Rashid	Head, Horticulture Division BAU.	Member
17. Mr. A.M. Abdallah	Principal Scientific Officer (Citrus) CVSR.	Observer
18. Mr. A. Akmal Miah	Senior Scientific Officer (Vegetable) CVSR.	Observer
9. Dr. A.K.M. Anzad Hossain.	Principal Scientific Officer (O&V) CVSR.	Member- Secretary

The following could not attend the meeting.

1. Dr. Akbar Husain, Head, Department of Horticulture, BAU.
2. Dr. Abdul Jalil Miah, Chief Agril. Economist, Ministry of Agril.
3. Dr. M. M. Rahman, Member-Director, PARC.
4. Mr. Kenji Niino, First Secretary, Embassy of Japan.

The Chairman welcomed the members for attending the meeting and the business of the meeting started.

Confirmation of the Proceedings of the Third Meeting of the Joint Committee.

The member-secretary reported that the proceedings of the Third Meeting held on 6 July, 1981 were circulated to the members. However, he has not yet received any comment from them. He further informed that a copy of the said proceedings has been supplied to the members along with other papers of this meeting and requested for their valuable comment on it. Since there was no comment from the members present, the proceedings in question were confirmed.

II. Release of Materials from Chittagong Port

The member-secretary reported that a consignment of materials despatched by JICA as per indent sent by the Government of Bangladesh has been lying at the Chittagong Port since March, 1981. These materials could not be released for want of fund under CDST. He also mentioned that fund provision under CDST in the ADP is very inadequate compared to the project aid shown it. The Chairman wanted to know from the member representing the Planning Commission about fund position of the scheme in the revised ADP.

Mr. M. A. Mumin informed that the fund under CDST for this scheme has been increased to Tk. 4.00 million in the revised ADP. The Chairman then assured the members that as soon as this fund under CDST is available, the materials will be released.

CDST as provided in the revised ADP is available, the materials in question will be released without delay.

III. Filling up of Vacant Posts

Initiating discussion on this point, the Chairman told the members that the BARI authority has already decided to convene a meeting of the Promotion Committee very soon to examine and recommend if there are suitable candidates among the working scientists for promotion to the posts of Principal Scientific Officers and Senior Scientific Officers. If suitable candidates are not found among the working scientists, these posts will be filled up by direct recruitment as early as possible.

The Chairman further informed that he has already directed the Project Officer to take necessary steps for recruitment of Scientific Officers. He, however, opined that the posts of Field Assistant will be filled up by promotion only and instructed Dr. M. H. Mondol, Associate Director(Res.) to expedite this matter.

IV. Further Japanese Assistance

The member-secretary reported that in the newly approved expanded scheme, an amount of Tk. 13.955 million has been stipulated as project aid from the Govt. of Japan to develop physical facilities at the Regional Station and Sub-centres. A formal request for this matter has already been sent to the Government of Japan by the Government of Bangladesh. The Chairman then wanted to know from Mr. Murakoshi the present position of the proposal who replied that to his knowledge the proposal in question has not yet been received by the Embassy of Japan. Mr. M. Saiful Haq then pointed out that the proposal has been sent on 29 December, 1981 and it will reach to the Embassy of Japan very soon. Mr. Murakoshi was then requested to consider the proposal favourably and expedite it.

V. Services of a Long Term Expert on Plant Pathology

Initiating discussion on this subject, Mr. Tasaki informed that good Plant Pathologists are not many in Japan and as such their services are not available on long term basis. So, JICA has decided to send pathologists on short term basis.

The Chairman suggested that such pathologists should be very senior person with wide experience who may come for three months in one year and again for three months in the next year. All agreed to this suggestion.

VI. Evaluation of Progress Work.

Initiating discussion on this subject, the Chairman apologised for having another important appointment at that time and left the meeting requesting Dr. M. H. Mondol to preside over. At this time, some of the members showed their willingness to see the experimental fields and the physical facilities before getting into discussion. Accordingly, the members were shown around the experimental fields and the physical facilities. They were very happy to see the activities of the centre. The meeting then resumed after an hour and a half. Dr. A.K.M. Hossain gave a brief account of the activities of the centre and then requested the members to go through the Up-to-date Progress Report and offer their valuable comment.

At the end Dr. M. H. Mondol spoke of the research need of this sector and thanked all the members for attending this meeting in spite of their important preoccupation.

The meeting then ended with a vote of thanks to and from the chair.

A.K.M. Hossain
19.3.82
(Dr. A.K.M. Anzad Hossain)
Member-Secretary
Joint Committee,
Citrus and Vegetable Seed Research Centre,
ARI.

CITRUS AND VEGETABLE SEED RESEARCH CENTRE(CVSRG)
 BANGLADESH AGRICULTURAL RESEARCH INSTITUTE
 JOYDEBPUR, DHAKA.

Proceedings of the Fifth Meeting of the Joint
 Committee held on Wednesday, 6 April, 1983 in
 the Conference Room of the BARC, Farm Gate, Dhaka.

Dr. Kazi M. Badruddoza, Director, BARI and Chairman of the Joint Committee presided over the meeting. The following were present.

A. Japanese Side:

1. Mr. T. Murakoshi	Resident Representative JICA, Dhaka.	Member
2. Dr. H. Sakai	Team Leader, Japanese Expert Team, CVSRG	Member
3. Mr. Seiko Tasaki	Vegetable Expert, CVSRG	Member
4. Mr. T. Nakagawa	Co-ordinator, CVSRG	Member
5. Mr. Takashi Sato	Team Leader, Japanese Expert Team, CERDI	Member
6. Mr. Shinsuke Kono	Citrus Expert, CVSRG	Member
7. Mr. Isao Iwagaki	Short Term Citrus Expert, CVSRG	On invitation

B. Bangladesh Side:

8. Dr. Kazi M. Badruddoza	Director, BARI	Chairman
9. Mr. Abdur Razzaque	Principal Scientific Officer(C&V), CVSRG	Member-Secretary
10. Dr. Abdul Jalil Miah	Section Chief(P&M wing), Agriculture & Forest Division, Ministry of Agriculture	Member
11. Director, Department of Agriculture Extension(F.C.D.)	Represented by Mr. Mazharul Hoque Joint Director Department of Agriculture Extension(FCD) < Food-Crop Division >	Member

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12. Director, PIB	Represented by Md. Abdus Sabor Dy. Director, Implementation Monitoring and Evaluation Division	Member
13. Mr. M. Saiful Hogue	Deputy Chief External Resources Division	Member
14. Dr. A.K.M. Amzad Hossain	Principal, In-charge BCAS, BARI	On invitation
15. Mr. A.M. Abdullah	Principal Scientific Officer, CVSRC	Observer
16. Mr. Abdur Rashid	Scientific Officer, CVSRC	Observer

The following could not attend the meeting.

1. Dr. Akbar Hossain, Head, Department of Horticulture, Bangladesh Agricultural University, Mymensingh.
2. Mr. M.M. Rahman, Member Director (Crops), BARC
3. Mr. K. Niino, First Secretary, Embassy of Japan
4. Mr. M.A. Mumin, Dy. Chief, Agriculture Division Planning Commission
5. Dr. M. Mamunur Rashid, Head, Horticulture Division, BARI.

Mr. Abdul Mumin, Dy. Chief, Agriculture Division, Planning Commission, could not attend the meeting due to preoccupation in the Commission. He, however, informed that any recommendation for the extension of Record of Discussion in respect of financial assistance should not exceed the present tenure of the Project.

Initiating the discussion Mr. Abdur Razzaque, Member-Secretary of the Joint Committee welcomed the members in the meeting. He then gave a brief resume of the activities and achievement of the Project. He mentioned that two new cultivars developed in the Project have been approved by the National Seed Board in their meeting held on 15.3.83 for general cultivation in the country. These are Tasaki San Mula-I

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and Gima Kalmi, the seeds of which will be formally handed over to the BADC and the Department of Agriculture Extension (Food Crops Divn.) for multiplication. He also told the meeting that one variety of leafy onion, one variety of guava named Kazi Piara, two varieties of rainy season leafy vegetables and a variety of cabbage that ^{has} the potential to flower and produce viable seeds locally have been developed and are awaiting ^{for} release by the National Seed Board. Many members took part into the discussion and expressed their satisfaction for the momentum of works generated thus far.

Before coming to the actual business of the meeting ^{the} Chairman gave a brief account of the Project activities. He expressed his satisfaction on to the overall achievement of the Project. He noted that within very short time it has contributed much to the agricultural research.

The Chairman requested the Principal Scientific Officer (C&V) to invite the members of the committee, time to time, to visit the CVSRC field whenever there will be any things new to show them. He particularly mentioned that the cabbage seeds are now ready for harvest. So the members may be invited to visit the field and to remain acquainted with the achievement of the Project.

Confirmation of the Proceedings of the
Fourth Meeting of the Joint Committee

The Member-Secretary reported that the proceedings of the Fourth Meeting held on 28 January, 1982 were circulated to the members. However, he has not received any comment from them. He further informed that a copy of the said proceedings has been supplied to the members along with other papers of this meeting and

requested for their valuable comments on it. Since there was no comment from the members present, the proceedings in question were confirmed.

Filling up of Vacant Posts

The Member-Secretary reported that out of 21 posts of Scientist 10 posts are lying vacant. Very recently two posts of local counterpart have fallen vacant due to the departure of Mr. Abdul Ahad Miah, S.S.O. (Vegetable) and Mr. Saoullah Mollah, S.S.O. (Citrus) for higher training and assignment abroad respectively. At this stage the Japanese side expressed their dissatisfaction over this issue. The Member-Secretary mentioned that the sanctioned posts of local counterpart at the headquarter are very limited and works are very often done through scientists diverting from other programmes of BARI. At times there were 3 local scientists working with the Japanese Experts in the Vegetable field for 2-3 years on deputation. Now also Mr. Md. Ashraf Khan, S.S.O. and Mr. Abdul Hoque, S.O. are working in the Citrus field against one vacant post of S.S.O. The Chairman then informed the meeting that due to financial constrain it was not possible to fill up all the vacant posts. More-over, there occurs some vacancies due to normal transfer, promotion etc. which cannot be solved al-together at a time. He also informed that recently they have selected candidates for appointment as S.S.O. under the Project. He, however, told that he will look into the matter and will not allow the programmes to suffer for the shortage of local counterpart.

III. Further Japanese Assistance.

Initiating the discussion the Member-Secretary told that in the new expanded Scheme an amount of Tk. 13.955 million was stipulated from the Govt. of Japan as grant to develop physical facilities at

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the Regional Station & Sub-Centres. A formal request to this effect was forwarded by the E.R.D. to the Embassy of Japan in Bangladesh during December, 1981. But no response has yet been received from the Japanese side. Mr. Murakoshi expressed their ignorance on the outcome of the request. He however told the meeting that the JICA is providing some fund for land development work at the Sub-Centres. He pointed out that very recently they have provided irrigation facilities at Rangpur Sub-Centre. Mr. Tasaki talking on the subject informed that he is in doubt whether formal request was received by the JICA. Mr. M. Saiful Hoque, Deputy Chief, ERD, however, confirmed about the formal request and further mentioned that the name of the Project was also included in this current list of the Projects requiring Japanese Assistance. There was some difference of opinion in the matter when the Chairman intervened and explained the need of such assistance. He also felt strongly to develop the Akbarpur Regional Station.

IV. Extension of Record of Discussion.

Mr. Murakoshi, the Resident Representative of JICA, speaking on the subject told that a formal request be sent to the Embassy of Japan for consideration. Without any formal request they can not take any action in this matter. He also said that it has already become very late. It was, therefore, decided to send a formal request immediately through the Ministry and ERD with copies to Mr. Murakoshi and the Team Leader for early action. The Chairman advised the P.S.O. (C&V) to do in no time. In this context the question of evaluation of the Project came under discussion: because any proposal for extension of Record of Discussion will require evaluation. The Member-Secretary informed that

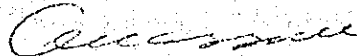
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the Scheme has been evaluated in May, 1982. The Chairman however advised the P.S.O.(C&V) to get it evaluated again by the said committee which will help extending the Record of Discussion.

Evaluation of Progress Report.

Initiating discussion on the subject the Chairman opined that there has been lots of discussion on the subject at the beginning of the meeting. The contribution put forward by the Project is praise worthy. He opined that no further discussion on the matter is necessary.

The meeting then ended with vote of thanks to and from the Chair.


(ABDUR RAZZAQUE)
Member-Secretary 2/4/83
Joint Committee

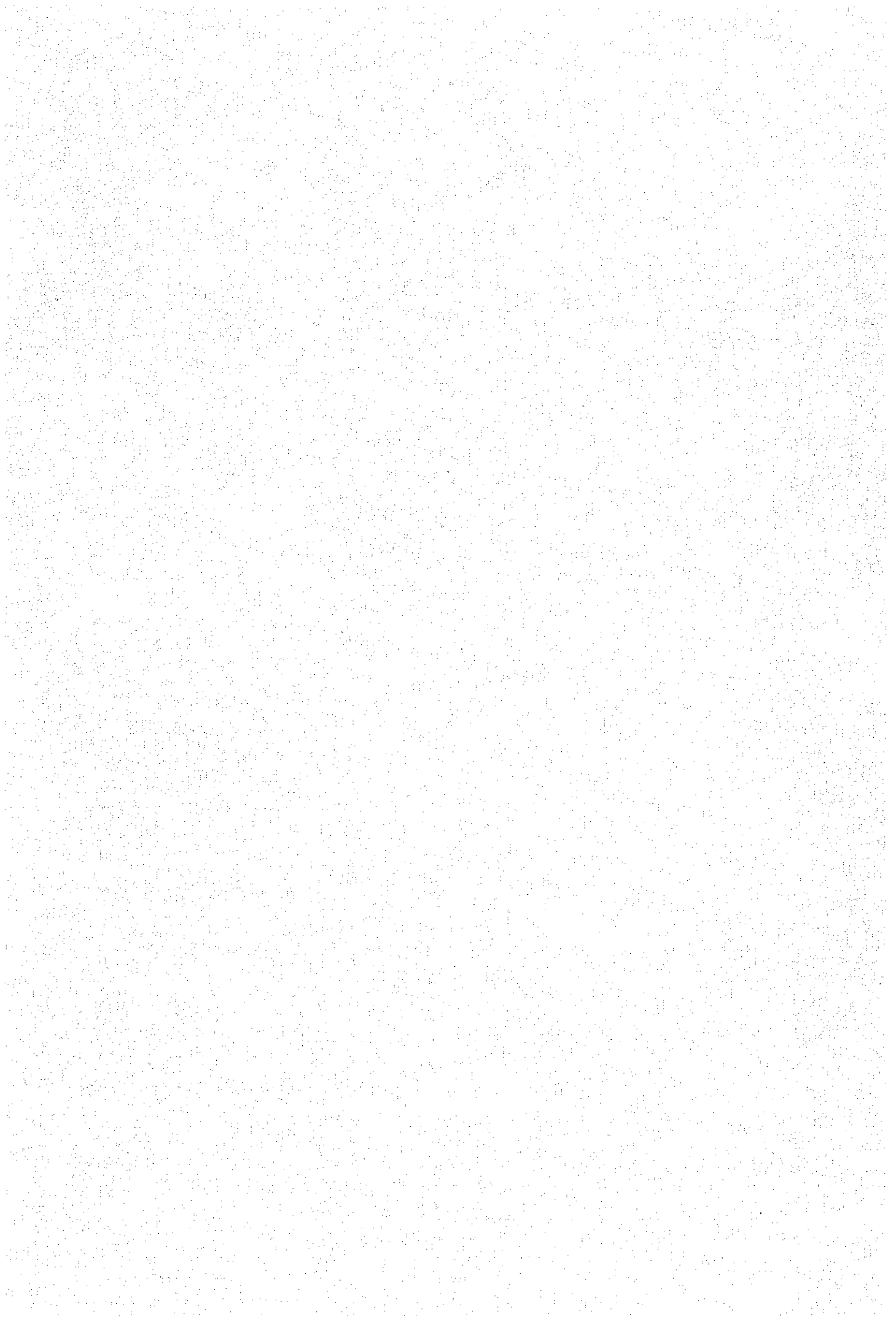
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Principal Scientific Officer(C&V)
Citrus and Vegetable Seed Research Centre
Joydebpur, Dhaka.

K.Ali.

VI-8. プロジェクトの出版物一覧(昭和58年8月現在)

番号	出 版 物 名	発 行 部 局	発 行 時 期	図書資料室* 整理番号
1	Bangladeshにおけるかんきつ改良、野菜種子増殖事業の現状調査と改善策立案に関する報告書	派	52. 5	4.1- 3904
2	Bangladesh 園芸開発調査団報告書	"	52. 1	4.6- 5209
3	Report on Horticultural Development Survey in Bangladesh	"	"	4.6- 6036
4	Bangladesh 園芸研究協力計画実施設計調査報告書	農開発	52. 12	4194- 88
5	Design Report on Citrus and Vegetable Research Project in the People's Republic of Bangladesh	"	"	4194- 94
6	Bangladesh 園芸研究計画巡回指導チーム報告書	農開畜	55. 4	4627- 7726
7	Report on the Plant Pathological Works on Citrus Trees at Citrus and Vegetable Seed Research Centre under Bangladesh Agricultural Research Institute, Joydebpur,	"	"	4627- 8142
8	Bangladesh 園芸研究計画エバリュエーション報告書	農開発	55. 8	4627- 8097
9	同 文 第2分冊 -機材供与一覧-	"	"	同 上
10	Bangladesh 園芸研究計画総合報告書	"	55. 9	4627- 8176
11	Report on the Vegetable Breeding Works at Citrus and Vegetable Seed Research Centre under Bangladesh Agricultural Research Institute, Joydebpur, Dacca	農開畜	55. 12	4627- 8655
12	Bangladesh 園芸研究協力計画の計画打合せチーム報告書	農開畜	55. 12	4627- 8435
13	Bangladesh 国の園芸概要	"	57. 6	4608- 14935
14	An Outline of Citrus and Vegetable Seed Research Centre BARI, Joydebpur, Dacca	パンフ レット	"	
15	Report on the Research works at Citrus and Vegetable Seed Research Center under Bangladesh Agricultural Research Institute	農開畜	57. 8	4627- 16975
16	Bangladesh 園芸研究計画計画打合せチーム報告書	"	57. 2	4627- 16801
17	Bangladesh 園芸研究計画巡回指導チーム報告書	"	58. 5	4627- 16381



JICA