

## V. 添付資料

### 1. 当該コースの概要

#### (1) コース開設および開設の経緯、目的

##### 1) コース開設の経緯

米の生産は、アジア・アフリカ・南アフリカの多くの米生産国において着実に増加しており、いくつかの国においては自給自足の段階に達している。しかしながら、米の収穫後処理によるロスにより、収穫の全てが消費されているわけではなく、重大な問題となっている。このような状態の改善のみならず、生産物の効果的利用のためにも、米の収穫後処理技術は非常に重要な技術となっている。

以上の観点から、本コースは途上国における米の収穫から流通に至るさまざまな技術分野における人材の育成を通し、途上国における米の収穫後処理技術の開発とその普及を図ることを目的として、1973年に「籾処理精米加工コース」として設立された。

1973年から1988年まで「籾処理精米加工コース」として計236名の研修員を受け入れた後、1989年から1992年までは「米のポストハーベストコース」として計60名を受け入れ、1993年からは「米の収穫後処理技術コース」と改称して現在に至っている。

##### 2) コースの目的

本コースは、日本における米収穫後の籾処理、すなわち籾乾燥、籾摺米の格付検査、貯蔵及び精米、精油等の処理加工技術に関する知識情報を提供することにより、研修員が自国において当該分野の行政面の企画・立案に、より一層の指導力を発揮できること、また、進んだ技術の普及、及び効果的な処理の向上、品質低下・量的なロスの防止に貢献することを目的とする。

本目的を達成するため、本コースでは、米に関する生産・流通制度等の一般知識を習得させると共に、収穫、乾燥、貯蔵、籾摺、精米加工等について技術移転を行なうものである。本コースの主な内容は以下のとおりである。

- ①日本における米の生産・流通制度及び農協の機能
- ②米の収穫、脱穀、乾燥、籾摺、貯蔵など各段階の処理方法と施設
- ③米の格付検査の方法と機材
- ④精米機とその関連装置の機能、大型精米における原料から製品に至る一連の処理方法と施設
- ⑤籾摺、米糠、破碎米などの副産物の利用
- ⑥関連分野に置ける計測方法
- ⑦米の処理・加工施設の企画設計、運営上の着眼点

### 3) 到達目標

- ①日本における米の生産、流通に関する組織体制と活動内容について理解する。
- ②米の収穫後処理技術の各段階における手法、方法を習得する。
- ③米の格付検査、精米機とその関連装置及び大型精米における一連の処理・計測方法について習得する。
- ④米の副産物の利用について理解する。
- ⑤米の処理・加工施設の企画設計、運営について理解する。

### 4) 研修員参加資格要件

- ①米の収穫後処理技術の改良に従事している政府や公共機関の上級技官
- ②年齢は45歳以下であること
- ③大学卒もしくは同当の学歴をもつこと
- ④英語での研修に支障をきたさない語学力を有すること
- ⑤心身共に健康であること

## (2) 研修機関および講師

本コースは国際協力事業団筑波国際センター業務第二課が農林水産省食糧庁総務部企画課および同省経済局技術協力課の協力を得て研修計画を企画・立案し、(財)日本穀物検定協会に委託して実施している。講師については、(5)研修日程を参照。

## (3) 研修員参加資格要件

### 1) General Information に規定する応募条件

- ・正式手続きにより応募国政府から推薦されたものであること
- ・米のポストハーベストに従事している政府や公共機関の技官
- ・大学や短大の講師や教授を除く
- ・大学卒もしくは同等の学歴で、年齢は45歳以下であること
- ・英語での研修に支障をきたさない語学力を有するもの
- ・軍席にないもの
- ・研修の履歴に必要にして十分健康であること  
(ただし、妊婦は適格者として認められない)

### 2) 人選方法

参加希望国政府より提出される要請書(A2A3フォーム)を基に、応募案内(GI:GENERAL INFORMATION)に記載されている応募者の資格要件を満たしているか否かを主たる選考基準として農林水産省経済局技術協力課、同省食糧庁総務部企画課、委託先である日本穀物検定協会及び国際協力事業団の間で協議し、人選決定する。

(4) 研修概念

研修員：米のポストハーベストに従事している政府や公共機関の技官。母国において米のポストハーベストに関する基本的知識や経験を有し、日本に置ける研修内容と母国のポストハーベスト事情との関わりを吟味できるもの

↓ 日本での研修

研修目的：日本のポストハーベストに関する知識情報を得ることにより、研修員が自国において当該分野の行政面の企画・立案に関し、指導力を発揮できるようになる。

研修到達目標

日本における米の生産流通に関する組織体制と活動内容について理解する。

米の収穫後処理技術の各段階における手段・方法について習得する。

米の格付検査と精米機、その関連装置及び大型精米における一連の処理・計測方法について習得する。

米の副産物の利用について理解する。

米の処理・加工施設の企画設計、運営について理解する。

研修单元

日本における米の生産と流通制度及び農協の機能	米の収穫、脱穀、乾燥、初摺、貯蔵等、各段階の処理法と施設	米の格付検査の方法と機材	精米機とその関連装置の機能、大型精米における原料→製品の一連	関連分野における計測方法	初摺、米糠、破碎米等副産物の利用	米の処理・加工施設の企画設計、運営
(講義) ・世界の米の需給事情 ・日本人の食生活 ・日本の米の加工産業 ・農協の事業活動 ・その他  (視察) ・農協 ・農家訪問 ・米販売店 ・その他	(講義) ・米の収穫後の収 ・穀類の水分 ・水稻種子 ・稲収穫機械の原理と構造 ・米の貯蔵 ・玄米貯蔵技術と貯蔵施設 ・米の貯蔵と品質 ・初摺、初乾燥の原理 ・パ・ホ・ウツ ・太陽熱乾燥 ・その他  (視察) ・農機工場 ・その他	(講義) ・日本における米の検査 ・世界の米の品種特性 ・米の理化学的測定 ・穀類の品質特製 ・その他  (視察) ・検査機器メーカーでの研修 ・その他	(講義) ・精米機、初摺機、乾燥機等の理論と構造 ・長粒種米の初摺と精米 ・その他  (視察) ・精米工場 ・その他	(講義) ・残留農薬の検査 ・その他	(講義) ・初穀の利用方法 ・その他	(講義) ・鼠対策 ・精米施設の基本設計 ・その他

↓ 評価

- ・研修目標の到達状況の確認
- ・次回研修へのフィードバック

(5) 研修日程 (平成10年度実施分)

月日	曜日	午前 (9:45~12:15)		午後 (13:30~16:00)		研修場所
		講義	講師	講義	講師	
8・27	木	来日				—
8・28	金	JICA7*リーフィング*	JICA		同左	TIC
8・29	(土)	休み				—
8・30	(日)	休み				—
8・31	月	JICAオリエンテーション	JICA		同左	TIC
9・1	火	JICAオリエンテーション	JICA		同左	TIC
9・2	水	開講式 研修オリエンテーション	農水省、食糧庁、 コースリーダー、JICA、 (財)日本穀物検定協会	個別面接	農水省、食糧庁、 コースリーダー、JICA、 (財)日本穀物検定協会	TIC
9・3	木	農水省、食糧庁訪問	農水省、食糧庁、 食糧庁検査課 指導官	世界の米の需給事情と 日本の米政策	食糧庁企画課 国際協力企画官 富樫治幸	農水省
9・4	金	日本における米の検査	指導官 宮本一夫	日本人の食生活	お茶の水女子大学 教授 畑江敬子	TIC
9・5	(土)	休み				—
9・6	(日)	休み				—
9・7	月	米の収穫後のロス	(社)日本精米工業会 技術部長 向井敏彦	農協の事業活動の概要	農水省経済局農協課 経営第一係長 小泉達治	TIC
9・8	火	米貯蔵技術と 玄貯蔵施設	食糧庁業務流通課 保管技術指導官 米澤 保	稲収穫機械の原理 と構造	生研機構 主任研究員 杉山隆夫 ◀講義終了後つくばへ移動▶	TIC
9・9	水	国際シンポジウム アジアにおける食糧の 貯蔵・流通・加工技術	JIRCAS		同左	JIRCAS
9・10	木	国際シンポジウム アジアにおける食糧の 貯蔵・流通・加工技術	JIRCAS		同左	JIRCAS

月日	曜日	午前 (9:45~12:15)		午後 (13:30~16:00)		研修場所
		講義	講師	講義	講師	
9・11	金	近赤外分光法概論	農水省食品総合研究所 非破壊評価研究室長 河野澄夫	ハイテクノロジーを利用 した高収量高品質の ハイブリッドライスの育種	筑波大学 教授 藤村達人	食総研
9・12	(土)	休み				
9・13	(日)	休み				
9・14	月	研究機関の見学	農水省食品総合研究所	有害動物としての鼠と その対策	ねずみ駆除協議会 顧問 長谷川恩	食総研 /TBIC
9・15	(火)	休み(敬老の日)				
9・16	水	米の貯蔵害虫とその 防除方法	農水省食品総合研究所 貯蔵害虫研究室長 中北 宏	長粒種米の初摺と精米	筑波大学 教授 吉崎 繁	TBIC
9・17	木	世界の米の品種特性	元東京大学教授 松崎昭夫		同左	TBIC
9・18	金	収穫実習	JICE		同左	TBIC
9・19	(土)	休み				
9・20	(日)	休み				
9・21	月	初摺・精米実習	東京大学 川越義則		同左	TBIC
9・22	火	初摺・精米実習	東京大学 川越義則		同左	TBIC
9・23	(水)	休み(秋分の日)				
9・24	木	パーボイリングの 理論と方法	筑波大学 教授 木村俊範		同左	TBIC
9・25	金	パーボイリングの実習	筑波大学 教授 木村俊範		同左	TBIC

月日	曜日	午前 (9:45~12:15)		午後 (13:30~16:00)		研修場所
		講義	講師	講義	講師	
9・26	(土)	《帰京》 休み				
9・27	(日)	休み				
9・28	月	初乾燥の原理	生研機構 主任研究員 久保田興太郎	初摺の原理	生研機構 主任研究員 久保田興太郎	IFIC
9・29	火	セラミック精米機、エレコン、 撚穀機等の理論と実習	(株)東洋精米機製作所 東京支社 部屋泰伸	同左	同左	桜台
9・30	水	カントリーレポート の準備	コースリーダー	カントリーレポート の準備	コースリーダー	IFIC
10・1	木	カントリーレポート の発表	コースリーダー	カントリーレポート の準備	コースリーダー	IFIC
10・2	金	日本の精米の品質	(社)日本精米工業会 常務理事 桂木優治	お米ギャラリーの見学	お米ギャラリー銀座 事務所長 福田颯	IFIC 東銀座
10・3	(土)	休み				-
10・4	(日)	休み 《秋田へ移動》				-
10・5	月	農協の倉庫、検査現場、 カントリーエレベーターの見学	わかみ農業協同組合	農家訪問	大越、三浦宅	秋田
10・6	火	圃場の見学	わかみ農業協同組合	寒風山の見学 《天童へ移動》		秋田
10・7	水	初摺機、乾燥機、 精米機の理論と構造	(株)山本製作所 海外課課長補佐 田村恒俊	同左	同左	天童
10・8	木	農協とライスセンターの見学	みちのく村山農業協同 組合大石田営農 ふれあいセンター	農協とライスセンターの見学	てんどう農業協同組合 ライスプラント	天童
10・9	金	農業機械生産工場 の見学	(株)山本製作所 東根事業所	米油工場の見学 《帰京》	三和油脂(株)	天童
10・10	(土)	休み(体育の日)				-

月日	曜日	午前 (9:45~12:15)		午後 (13:30~16:00)		研修場所
		講義	講師	講義	講師	
10・11	(日)	休み				—
10・12	月	検査機器メーカーでの研修	(株)ケット科学研究所		同左	馬込
10・13	火	日本の米の加工産業	食糧庁加工食品課 課長補佐 本間隆雄	穀物の太陽熱乾燥	東京大学 助教授 大下誠一	IFIC
10・14	水	検定機関での講義と研修	(財)日本穀物検定協会 中央研究所		同左	浦安
10・15	木	米の貯蔵微生物とその防除方法	東京家政大学 教授 一戸正勝		同左	IFIC
10・16	金	米の理化学的特性	食糧庁検査課 品質管理室 皆川治弘	品質管理室での実習 深川政府倉庫の見学		深川
10・17	(土)	休み				
10・18	(日)	休み				
10・19	月	穀類の水分	東京大学大学院教授 コースリーダー 瀬尾康久	グループディスカッション準備	コースリーダー 瀬尾康久	IFIC
10・20	火	グループディスカッション	コースリーダー 瀬尾康久		同左	IFIC
10・21	水	＜静岡へ移動＞		農業機械メーカーの見学	静岡製機(株)	袋井
10・22	木	炊飯機器メーカーの見学	(株)AIHO	農業機械メーカーの見学	日本車輛製造(株) 豊川製作所	豊川
10・23	金	農協とカンパニーメーカーの見学	あいち中央農業協同組合 総合センター			安城
10・24	(土)	＜帰京＞ 休み				—
10・25	(日)	休み				—

月日	曜日	午前 (9:45~12:15)		午後 (13:30~16:00)		研修場所
		講義	講師	講義	講師	
10・26	月	精米施設の基本設計	(社)日本精米工業会 常務理事 桂木優治		同左	IFIC
10・27	火	《西条へ移動》				—
10・28	水	農業機械メーカー 研修ガイダンス	(株)佐竹製作所 取締役副社長 岸田正之	初処理加工プロセスの 概要 初・玄米選別機の理論	(株)佐竹製作所 海外研修担当講師 岡部直庸	西条
10・29	木	初摺機の理論	(株)佐竹製作所 海外研修担当講師 岡部直庸	初摺機の操作実習	(株)佐竹製作所 海外研修担当講師 岡部直庸	西条
10・30	金	初乾燥機の理論	(株)佐竹製作所 海外研修担当講師 岡部直庸	精米の原理と 精米機の発達史	(株)佐竹製作所 海外研修担当講師 岡部直庸	西条
10・31	(土)	休み				—
11・1	(日)	休み				—
11・2	月	研削式精米機の理論 と構造	(株)佐竹製作所 海外研修担当講師 岡部直庸	摩擦式精米機の理論 と構造	(株)佐竹製作所 海外研修担当講師 岡部直庸	西条
11・3	(火)	休み (文化の日)				
11・4	水	研米機・コンパス精米装 置の理論、選別機 (石 抜機、カーソーター等)	(株)佐竹製作所 海外研修担当講師 岡部直庸	おいしいお米・計量・ 広島県経農協連工場と 東広島市農協の見学	(株)佐竹製作所 海外研修担当講師 岡部直庸	西条
11・5	木	米の分析とテスト機器	(株)佐竹製作所 海外研修担当講師 岡部直庸	《京都へ移動》		西条
11・6	金	京都観光		酒造メーカーの見学 《帰京》	月桂冠 (株) 大倉記念館	京都
11・7	(土)	休み				
11・8	(日)	休み				
11・9	月	《船橋へ移動》		米油の製造技術の講義 および米油工場の見学	ポーソー油脂 (株) 技術部長 伊草久夫	西船橋



月日	曜日	午前 (9:45~12:15)		午後 (13:30~16:00)		研修場所
		講義	講師	講義	講師	
11・10	火	製粉工場の見学	日清製粉(株)千葉工場	米の加工工場の見学	(株)コメック東京工場	千葉
11・11	水	製パン工場の見学	山崎製パン(株) 横浜第二工場			横浜
11・12	木	初穀の利用方法	生研機構 主任研究員 久保田興太郎	予備		TIC
11・13	金	評価会 閉講式	農水省、食糧庁、 コッソル、JICA、 (財)日本穀物検定協会	さよならパーティ	関係者一同	TIC
11・14	(土)	休み				TIC
11・15	(日)	離日				—

講師：敬称略

## (6) 国別帰国研修員数

( ) 内は個別研修員の内訳

		昭和48年~63年 (初処理精米加工)	平成元年~4年 (米のポストハーベスト)	5年 (第1回)	6年 (第2回)	7年 (第3回)	8年 (第4回)	9年 (第5回)	10年 (第6回)	合計
アジア	バングラデシュ	6	1	-	-	1	-	-	1	9
	ヴェトナム	1	-	-	-	1	-	1	1	4
	ミャンマー	24	-	-	-	-	1	1	1	27
	インド	3	-	-	-	-	-	-	1	4
	インドネシア	29	4	-	1	1	1	1	1	38
	ラオス	2	-	-	-	-	-	-	-	2
	マレーシア	11	2	1	-	-	1	-	1	16
	アフガニスタン	1	-	-	-	-	-	-	-	1
	ネパール	14	2	-	-	-	-	1	-	17
	パキスタン	5	3	-	-	1	-	-	1	10
	フィリピン	19	4	1	1	1	1	2(1)	1	30(1)
	スリ・ランカ	14	-	1	1	1	1	1	1	20
	タイ	18	3	-	1	1	1	1	1	26
	中国	2	2	-	-	-	1	1	1	7
	計	149	21	3	4	8	7	9(1)	10	211
太平洋州	フィジー	-	1	1	-	-	1	-	-	3
	計	0	1	1	0	0	1	0	0	3
中近東	エジプト	16	4	1	1	1	1	-	-	24
	イラク	3	-	-	-	-	-	-	-	3
	モロッコ	1	1	-	-	-	-	-	-	2
	スーダン	6	-	-	-	-	-	-	-	6
	計	26	5	1	1	1	1	0	0	35
アフリカ	ガーナ	6	-	-	-	-	-	-	1	7
	象牙海岸	-	1	1	1	1	1	1	1	7
	ケニア	-	1	-	1	-	-	1	1	4
	リベリア	6	1	-	-	-	-	-	-	7
	マダガスカル	1	3	-	-	-	-	-	-	4
	ナイジェリア	3	4	1	-	-	-	(1)	(1)	8(2)
	シエラレオーネ	-	-	-	-	1	-	-	-	1
	タンザニア	10	6	1	-	-	-	-	-	17
	トーゴ	1	-	-	-	-	-	-	-	1
	ニジェール	1	3	-	-	-	-	-	-	4
	計	28	19	3	2	2	1	2(1)	3(1)	60
中南米	ボリビア	5	-	-	-	-	-	-	-	5
	ブラジル	5	5	-	-	-	-	1	1	12
	コロンビア	7	1	-	-	-	-	-	-	8
	コスタリカ	1	-	-	-	-	-	-	-	1
	ドミニカ共和国	-	1	-	-	-	-	-	-	1
	ガイアナ	3	-	-	1	-	-	-	-	4
	ホンジュラス	1	-	-	-	-	-	-	-	1
	メキシコ	-	2	1	-	1	-	-	-	4
	ニカラグア	-	-	-	1	-	-	-	-	1
	ペルー	8	3	-	1	1	-	-	-	13
	トリニダード・トバゴ	-	1	-	-	-	-	-	-	1
	ウルグアイ	-	-	-	-	-	1	-	-	1
		計	30	13	1	3	2	1	1	1
	合計	233	59	9	10	13	11	12(2)	14(1)	361

## (7) 研修の評価

研修修了時において評価会を開催し、講義内容、研修プログラム、研修の成果等についての意見交換を行う。また、QUESTIONNAIRE FOR FUTURE PROGRAMMESを研修員より提出させ、上記評価会における感想、意見、提案等とあわせて、研修員の本研修コースに対する理解程度を総合的に評価するとともに今後の本研修コースの改善のための参考にすることとする。

なお、研修修了時、しかるべき時期に国際協力事業団、農林水産省および研修受託機関の各関係者により反省会をもち、今後の本研修コースの改善に資することとする。

2. Questionnaire  
(帰国研修員宛)

October 7, 1998

Dear Sir,

I am writing with the hope that you are actively engaged in your work in excellent health and in spirits since you returned to your country after training in Japan.

It is my pleasure to inform you that the Japan International Cooperation Agency is doing utmost efforts to expand and improve its technical training programmes year after year. We have accepted a total of 150,000 participants from the developing countries during the period of 1954 to March 1998. In fiscal 1998, we plan to accept more than 9,000 participants and conduct around 580 group training courses and seminars.

In programming future training courses, we endeavor to place the emphasis not only on increasing the number of participants to meet the augmenting requests from developing countries but also on improving the quality of training programmes. For this purpose we would like to know how and what the ex-participants in our training courses are making use of the knowledge and the technology acquired in Japan and to hear what suggestion and recommendation they have for the betterment of our course.

It is also important to brush up and upgrade what you have learnt in Japan. Therefore JICA dispatches technical follow up team to the participating countries every year to provide the ex-participants with the new information in the fields of their activities.

This year JICA has decided to dispatch a follow up team to your country in the field of your expertise. Details of the team's schedule and the questionnaire are enclosed herewith.

We shall be grateful if you could extend your kind cooperation to the visiting team during its stay in your country.

The members of the team are really looking forward to meet you.

Yours sincerely,

Akihiko HASHIMOTO  
Managing Director,  
Tsukuba International Centre (TBIC)  
Japan International Cooperation Agency (JICA)  
3-6 Koyadai, Tsukuba-shi, Ibaraki-ken 305-0074,  
JAPAN

# Questionnaire

## to the Ex-participants of the Post-Harvest Rice Processing Course

We will greatly appreciate your cooperation in answering the following questions to help us to effectuate our follow-up survey. Please kindly write in block letters or typewrite.

### I. GENERAL QUESTION

1. Your full name and age:  
(Dr. Mr. Mrs. Ms.) \_\_\_\_\_ Age \_\_\_\_\_
2. Year of your participation and name of course  
\_\_\_\_\_
3. Name of organization you belong now:  
\_\_\_\_\_
4. Your position:  
\_\_\_\_\_
5. Office address and telephone number:  
\_\_\_\_\_
6. Home address and telephone number:  
\_\_\_\_\_
7. Have you ever participated in foreign training before and after training in Japan ?  
 Yes                       No

In case of "Yes", please mention the name of course, the name of Institution (country) and the duration of the course.

\_\_\_\_\_

### II. QUESTION ON YOUR PRESENT JOB

1. Please describe the work of your organization:  
\_\_\_\_\_  
\_\_\_\_\_
2. Please give a brief description of your duties in the present job:

---

---

3. Are you making use of the results you gained through the training in Japan ?

- Yes  No

If your answer is "Yes", please mention how you are making use of it. If the answer is "No", please mention why you can not do so.

---

---

4. What are the major problems of post-harvest rice processing you are facing in your country ?

---

---

5. What are the effective countermeasures to resolve the above mentioned problems ?

---

---

### III. QUESTION ON THE COURSE YOU ATTENDED

1. To what extent did you know about post-harvest rice processing in Japan before you came ?

- Very well  Well  Somewhat  
 Not enough  Not at all

Comments: \_\_\_\_\_

---

2. To what extent were your expectations of the training program fulfilled ?

- Completely  Highly  Somewhat  
 Hardly  Not at all

Comments: \_\_\_\_\_

---

3. To what extent have you applied the knowledge/skills acquired during the training in your present job so far ?

- All  Most  Some  
 A little  None

Comments: \_\_\_\_\_

---

4. To what extent have the training you attended contributed to your personal improvements ?

A lot

Somewhat

Not at all

If there were, how were they helpful ?

Work condition

Obtaining better job

Responsibility

Professional recognition

Salary related

International contacts

Prospects for the future

Others

Comments: \_\_\_\_\_

---

5. What are the two most useful and applicable subjects which you learned from the course ?

(a) \_\_\_\_\_

(b) \_\_\_\_\_

Comments: \_\_\_\_\_

---

6. If you wanted to add two subject to the Course, what would they be ?

(a) \_\_\_\_\_

(b) \_\_\_\_\_

7. Do you have any proposals or suggestions for the improvement of the course in the future ?

\_\_\_\_\_

\_\_\_\_\_

---

#### IV. QUESTION ON THE FOLLOW-UP ACTIVITIES

1. What kind of follow-up activities of the course do you request ?

Please tick off the appropriate items and describe as specifically as possible the nature of your request.

Sending literature and technical information

Technical consultation

Re-training and re-fresher training

Others, if any (Equipment or Facilities, Dispatching Japanese Experts and so on )

2. If you feel it necessary to have a re-fresher training in the future, please give us any suggestion for the following items.

(a)Contents: \_\_\_\_\_

\_\_\_\_\_

(b)Duration: \_\_\_\_\_

\_\_\_\_\_

## V. QUESTION ON THE FRIENDSHIP ACTIVITIES AMONG EX-PARTICIPANTS

1. Do you have an alumni association of JICA participants in your country ?

Yes

No

2. If the answer to No.1 is "Yes", what kind of activities do you have every year ?

\_\_\_\_\_

\_\_\_\_\_

3. Do you have any sort of contact with other ex-participants of the same course in and out of your country ?

\_\_\_\_\_

\_\_\_\_\_

## VI. ANY OTHER COMMENTS

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



(帰国研修員所属先宛)

: 本文は日本にて各々スペイン語、ポルトガル語に翻訳して送付した

## Questionnaire

To whom it may concern

We will greatly appreciate your cooperation in answering the following questions to help us effectuate our visit to your country. (Please kindly write in block letters or typewrite.)

### I. General questions

1. Full name : \_\_\_\_\_
2. Your position : \_\_\_\_\_
3. Name of organization you belong to : \_\_\_\_\_  
\_\_\_\_\_
4. Office address : \_\_\_\_\_  
\_\_\_\_\_
5. Relation between you and Mr./Ms. : \_\_\_\_\_  
\_\_\_\_\_

### II. Questions on Post-Harvest Rice Processing Course

1. Have you known the above course ?  
 Yes  No
2. If your answer is "Yes", when and how did you come to know the course ?  
\_\_\_\_\_  
\_\_\_\_\_
3. Do you know that Mr./Ms. is one of the ex-participants of the course ?  
 Yes  No
4. Do you have any intention of sending your staff to the course as a participant in future ?  
 Yes  No
5. How many engineers do you think there are in your office who are suitable for participating in the course ?  
\_\_\_\_\_

6. What kind of technical training (Purpose, Subject, Training Method, etc.) do you wish to equip with in the course ?

---

---

---

---

### III. Questions on effectiveness of the training

1. From your point of view, have your ex-participant brought useful and applicable technology and/or knowledge ?

Yes

No

2. If your answer is "Yes", what are the technology and/or knowlegde he/she brought ? Please describe them.

If your answer is "No", what are the technology and/or knowlegde you need?

---

---

---

3. Do you think that participating in training course like Post-harvest Rice Processing is beneficial for the staff's future promotion ?

Yes

No

4. If your answer is "Yes" in the above question, how do you evaluate the ex-participant performance ? If your answer is "No", please describe the reason.

---

---

---

---

---

IV. If you have any suggestions and/or requests to the Japan International Cooperation Agency (JICA), please describe.

---

---

---

---

---

---

---

---

Date : \_\_\_\_\_ Signature : \_\_\_\_\_

Thank you very much.

## Questionnaire

To whom it may concern

We will greatly appreciate your cooperation in answering the following questions to help us effectuate our visit to your country. Please kindly write in block letters or typewrite.

### I. General questions

1. Full name : \_\_\_\_\_
2. Your position : \_\_\_\_\_
3. Name of organization you belong to : \_\_\_\_\_  
\_\_\_\_\_
4. Office address : \_\_\_\_\_  
\_\_\_\_\_

### II. Questions on the human resources development plan in your country

1. What is the national plan and its priority for the human resources development in agriculture ?  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
2. What is the position of JICA training programme in your national plan for the human resources development ?  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
3. What is expected to the ex-participants of JICA ?  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
4. Others  
\_\_\_\_\_  
\_\_\_\_\_

---

III. Questions on the selection process of the applicants to JICA group training course

1. Which organizations are selected to send General Information in agricultural field ?

---

2. What are the standards (criteria) and the methods (examination or other) for selecting applicants ?  
And who will make the final decision ?

---

---

---

3. How long does it take from receiving G.I. to sending A2A3 form ?

---

---

IV. If you have any requests or suggestions to the Japan International Cooperation Agency (JICA), please describe.

---

---

---

---

---

---

---

3. 当該国訪問機関に提出した英文所見  
(メキシコ)

SUMMARY REPORT OF THE FOLLOW-UP TEAM  
FOR THE EX-PARTICIPANTS OF POST-HARVEST RICE PROCESSING  
COURSE  
BY JAPAN INTERNATIONAL COOPERATION AGENCY

I. Introduction

It is our great pleasure to have the opportunity to visit United States of Mexico as the follow-up team, consisting of four members mentioned below, for the ex-participants of Post-harvest Rice Processing Course, which have been conducted by Japan International Cooperation Agency under technical cooperation of the Government of Japan.

The team hereby will submit a short summary report on its five days' follow-up survey since November 30 to December 4, 1998 for the purpose of reference by the authorities concerned in the Government of United States of Mexico.

The team could finish conducting the follow-up survey in Mexico without any difficulties.

II. Team Members

1. Mr. Hisao NAKANO

Deputy Director of Second Program Division, Tsukuba International Center,  
Japan International Cooperation Agency

2. Dr. Yasuhisa SEO

Professor, Graduate School of Agricultural and Life Science,  
The University of Tokyo

3. Mr. Hidemichi UMIGISHI

Section Chief, Policy Division, Administration Department, Food Agency,  
Ministry of Agriculture Forestry and Fishery

4. Ms. Akiko FUJITA

Staff of Second Program Division, Tsukuba International Center,  
Japan International Cooperation Agency

III. Objectives

Main purpose of the dispatching team are:

1. To measure and evaluate the efficiency of the courses for the ex-participants and the extent of utilization of what they had gained in Japan and exchange views and opinions with them, their superior officials and related organs

concerning technical matters in the field of Post-harvest Rice Processing for the betterment of future program.

2. To investigate and understand the present situation of this country especially in the field of Post-harvest Rice Processing in order to improve the training program.

#### IV. Results of Follow-up Survey

Among four ex-participants, we could meet with three ex-participants and also receive the Questionnaire from 4 participants, which JICA had distributed in advance.

Through the meeting and the Questionnaire of the ex-participants and officers of the related organizations, the Team could obtain their comments and proposals about the Course and their requests on follow-up services for the ex-participants.

1. Suggestions and opinions obtained through the follow-up survey in Mexico.

(1) Evaluation of training programme

It is found in the questionnaire that training programme highly satisfied all the participants in Mexico.

(2) Present Technical Problems in Mexico

- occurrence of broken rice
- lack of information on proper harvesting time for variety wise to avoid shattering loss
- poor condition of warehouse
- deficiency of drying and milling facilities

(3) Following subjects were found to be useful

a) Lectures

- drying husking and polishing equipments
- whitening machines and polished rice
- rice inspection
- rice milling
- optimum conditions for storing

b) Practical training

- practical training on quality test in Satake
- practice on rice inspection at JR Wakami

We found that the above-mentioned subjects should be continued in the course.

(4) Advice to improve the training curriculum

We received the following advice from participants:

- management of post-harvest rice processing
- more time on practical training
- utilization of by-products
- discussion meeting about present technical problem in respective counties

2. Suggestion and opinions as to the follow-up activities are as follows:

- (1) More literatures and technical information to follow.
- (2) Retraining or refresher training were required in the following items.
  - technological innovations to better post-harvest management
  - drying processing and quality
  - seed technology

## V. General Impression

The impression the Team received through the visits to the organizations concerned and discussions with the ex-participants and their superiors is as follows:

### 1. Results and effects for the participation of the training course

We could recognize the fact that ex-participants are occupying important positions in their service and have been engaging in their duties with strong confidence based on technical background. We are also very glad to hear that some of them participated the formation work of rice quality standard in state and national level by making use of the experience and knowledge which were gained in the technical training in Japan, and that the participation to the training course will be helpful for their future promotion.

### 2. Distribution of General Information (G.I.) and allotment to the Course.

In the Ministry of Foreign Affairs, we had the explanation that the course G.I.s in the field of agriculture are widely delivered to the authority concerned, for example, Ministry of Agriculture Forestry and Livestock, several universities and the related institution including private sector to gather many proper candidates, though Ministry of Agriculture Forestry and Livestock desired that G.I.s related to agriculture sector are delivered to only above the Ministry. We would support the opinion from Ministry of Foreign Affairs to avoid that nobody is recommended as a candidate.

Both Ministry of Foreign Affairs and Agriculture, Forestry and Livestock recognized the importance of post-harvest rice processing technology in Mexico and they commented to secure the allotment for the Course. We also had the same opinion with them and promise to make an effort to accept the participants.

### 3. Present Rice Processing in Mexico and the future

We found from the interviews at two milling facilities in the state of Morelos



that the most serious problem at present in post-harvest rice processing is a remarkably poor milling yield due to high percentage of broken rice occurred during milling. This problem could be solved with ease, however, by applying countermeasures mentioned below:

- Installation of plural numbers of milling machine, or combination of different types of milling machine (abrasive and friction)
- Reduction of the drying rate
- Application of tempering operations during drying

On the other hand, effective various utilizations of by-products of paddy such as husk, bran, and broken rice as well are much more versatile than we have expected. They seem to dedicate to the additional profit to their business. We are really impressed by the surprisingly high yield which is about 10t/ha. Although there seems a little concern about the shortage of water supply for irrigation, those evidences of the high yield and the ideal climate in Mexico made us convince the high potentiality for rice product in future. In order to realize the increase in rice production in the future, education and training of human resources in post-harvested rice processing will be highly and urgently required. The course "Post-harvest Rice Processing" could play an important role to comply with this requirement.

Finally we would like to express our heartfelt gratitude to all the respective authorities concerned, their superiors and our dear ex-participants for their kind cooperation, assistance and hospitality. We could not have carried out the follow-up survey in the short time given to us without tremendous support rendered by those persons.

Thank you very much.

## VI. Brief Schedule

### 1. November 30 (Monday)

-Arrival in Mexico City from Narita by JL 012

### 2. December 1 (Tuesday)

-Meeting at JICA Mexico Office

-Courtesy call to the Embassy of Japan

-Courtesy call and discussion

Ministry of Agriculture Forestry and Livestock

-Courtesy call and discussion

INIFAP

### 3. December 2 (Wednesday)

-Meeting and discussion with 2 ex-participants

-Move to Morelos

-Visiting to JICA Project site

- Discussion with ex-participant's office
- 4. December 3 (Thursday)
  - Visit to rice mill and a producers' cooperative
  - Return to Mexico City
- 5. December 4 (Friday)
  - Report to JICA Office
  - Courtesy call on Embassy of JAPAN
  - Friendship party with ex-participants
- 6. December 5 (Saturday)
  - Leave for Sao Paulo by RG 871

(ブラジル)

SUMMARY REPORT OF THE FOLLOW-UP TEAM  
FOR THE EX-PARTICIPANTS OF POST-HARVEST RICE PROCESSING  
COURSE  
BY JAPAN INTERNATIONAL COOPERATION AGENCY

## I. Introduction

It is our great pleasure to have the opportunity to visit Federal Republic of Brazil as the follow-up team, consisting of four members mentioned below, for the ex-participants of Post-harvest Rice Processing Course, which have been conducted by Japan International Cooperation Agency under technical cooperation of the Government of Japan.

The team hereby will submit a short summary report on its six days' follow-up survey since December 6 to December 11, 1998 for the purpose of reference by the authorities concerned in the Government of Federal Republic of Brazil.

The team could finish conducting the follow-up survey in Brazil without any difficulties.

## II. Team Members

1. Mr. Hisao NAKANO  
Deputy Director of Second Program Division, Tsukuba International Center,  
Japan International Cooperation Agency
2. Dr. Yasuhisa SEO  
Professor, Graduate School of Agricultural and Life Science,  
The University of Tokyo
3. Mr. Hidemichi UMIGISHI  
Section Chief, Policy Division, Administration Department, Food Agency,  
Ministry of Agriculture Forestry and Fishery
4. Ms. Akiko FUJITA  
Staff of Second Program Division, Tsukuba International Center,  
Japan International Cooperation Agency

## III. Objectives

Main purpose of the dispatching team are:

1. To measure and evaluate the efficiency of the courses for the ex-participants and the extent of utilization of what they had gained in Japan and exchange views and opinions with them, their superior officials and related organs concerning

technical matters in the field of Post-harvest Rice Processing for the betterment of future program.

2. To investigate and understand the present situation of this country especially in the field of Post-harvest Rice Processing in order to improve the training program.

#### IV. Results of Follow-up Survey

Among twelve ex-participants, we could meet with seven ex-participants and also receive the Questionnaire from nine participants, which JICA had distributed in advance.

Through the meeting and the Questionnaire of the ex-participants and officers of the related organizations, the Team could obtain their comments and proposals about the Course and their requests on follow-up services for the ex-participants.

1. Suggestions and opinions obtained through the follow-up survey in Brazil.

(1) Evaluation of training programme

It is found in the questionnaire that training programme highly satisfied all the participants in Brazil.

(2) Present Technical Problems in Brazil

- Occurrence of broken rice
- Difficulty of practicing harvest work at proper time
- Grain loss at harvesting processing and storage stage
- Deficiency of modern drying and milling facilities
- Contamination of red rice in paddy field and its separation

(3) Following subjects were found to be useful

a) Lectures

- Advanced technologies and detailed equipments
- Technique for storage and to improve rice quality
- Rice inspection system
- Insects, microorganisms and humidity in storage period

b) Practical training

- Practical training on quality test in Satake
- Practice on rice inspection at JR Wakami

We found that the above-mentioned subjects should be continued in the course.

(4) Advice to improve the training curriculum

We received the following advice from participants:

- To make the participants experience the whole process practically
- Design of storage and milling facilities and project analysis

- Utilization of solar energy for drying
  - Discussion meeting about present technical problem in respective counties
2. Suggestion and opinions as to the follow-up activities are as follows:
- (1) More literatures and technical information to follow.
  - (2) Retraining or refresher training were required in the following items.
    - parboiling technology
    - drying processing
    - soils technologies
    - solar power use in rice processing
    - environment preservation
    - rice new products

#### V. Holding of the Technical Seminar

Technical Seminar was held at CATI in Campinas. Around twenty persons participated from the related organization, including the ex-participants of the training course in Japan. The seminar was started from 14:00 and closed at 17:00 after the fruitful discussion based on question and answer. The title of the seminar

are shown below:

1. The present situation of Post-harvest Rice Processing in Japan  
By Dr. Yasuhisa SEO
2. Rice quality as the commercial rice  
By Mr. Hidemichi UMIGISHI

#### VI. General Impression

The impression the Team received through the visits to the organizations concerned and discussions with the ex-participants and their superiors is as follows:

##### 1. Results and effects for the participation of the training course

We could recognize the fact that ex-participants are occupying important positions in their service and have been engaging in their duties with strong confidence. We are also very glad to hear that most of the participants are satisfied with the contents of training programme and are making use of the experience and knowledge which were gained in Japan, and that the participation to the training course will be helpful for their future prospects.

##### 2. Distribution of General Information (G.I.) and allotment to the Course.

We had the explanation that General Informations are distributed to the

authorities concerned from JICA Office .We recognize that it is a particular case comparing with the other countries which receive the same training programme.

In the Ministry of Foreign Affairs, we found that the Ministry is setting the branch offices in the whole country and try to deliver the course information widely through the internet. We expect your effort that the candidate is surely nominated in each training course. We are requested to send the G.I. in form of floppy disk to utilize the internet .We recognize that Brazil has the well developed internet work, it is the good means to use it for public communication.

We could understand that the rice is a very important crop in Brazil and there are several problems to be solved in the field of post-harvest rice processing. We would be ready to accept a participant constantly with the request from the Government of Brazil.

### 3. Present Rice Processing in Brazil and the future

We found from the interviews at two milling facilities in the state of Morelos that the most serious problem at present in post-harvest rice processing is a remarkably poor milling yield due to high percentage of broken rice occurred during milling. This problem could be solved with ease, however, by applying countermeasures mentioned below:

- Installation of plural numbers of milling machine, or combination of different types of milling machine (abrasive and friction)
- Reduction of the drying rate
- Application of tempering operations during drying

On the other hand, effective various utilizations of by-products of paddy such as husk, bran, and broken rice as well are much more versatile than we have expected. They seem to dedicate to the additional profit to their business. We are really impressed by the surprisingly high yield which is about 10t/ha. Although there seems a little concern about the shortage of water supply for irrigation, those evidences of the high yield and the ideal climate in Brazil made us convince the high potentiality for rice product in future. In order to realize the increase in rice production in the future, education and training of human resources in post-harvested rice processing will be highly and urgently required. The course "Post-harvest Rice Processing" could play an important role to comply with this requirement.

Finally we would like to express our heartfelt gratitude to all the respective authorities concerned, their superiors and our dear ex-participants for their kind cooperation, assistance and hospitality. We could not have carried out the follow-up survey in the short time given to us without tremendous support rendered by those persons.

Thank you very much.

## VII. Brief Schedule

1. December 6 (Sunday)
  - Arrival at Brazillia from Mexico City by RG 871 and RG 378
2. December 7 (Monday)
  - Meeting at JICA Brazil Office
  - Courtesy call to the Embassy of Japan
  - Courtesy call to Ministry of Foreign Affairs
  - Moving to Goiania
3. December 8 (Tuesday)
  - Visiting to National Center for Research on Rice and Beans,Embrapa
  - Moving to Sao Paulo by JJ 835
  - Meeting at JICA Sao Paulo Office
  - Moving to Campinas
4. December 9 (Wednesday)
  - Interview and discussion with 7 ex-participants
  - Holding the Technical Seminar at CATI
  - Friendship party with ex-participants
5. December 10 (Thursday)
  - Visiting to ex-participant's office
  - Visit to rice mill factory
  - Return to Sao Paulo
6. December 11 (Friday)
  - Report to JICA Office
  - Leave for Japan by JL 063

4. 研修候補者の応募・選考状況（平成10年度実施分）

定員：10名

割当国数及び応募人数：

割当て国14カ国に対し、すべての国から応募があり応募人数は、24名

受入人数：

集団枠により受け入れた研修員数 14名

個別研修員の受入人数 1名 合計15名

(1) 集団枠による受入

国名	割当数	応募数	受入数	備考（受入不能理由）
インドネシア	1	2	1	定員オーバー
マレーシア	1	3	1	定員オーバー
フィリピン	1	1	1	
タイ	1	2	1	定員オーバー
ミャンマー	1	2	1	定員オーバー
中国	1	1	1	
バングラデシュ	1	2	1	定員オーバー
インド	1	1	1	
パキスタン	1	2	1	定員オーバー
スリランカ	1	3	1	定員オーバー
ケニア	1	1	1	
象牙海岸	1	2	1	定員オーバー
ブラジル	1	1	1	
ガーナ	1	1	1	
合計	14	24	14	

(2) 個別枠による受入

国名	受入数	備考（関連プロジェクト名）
ナイジェリア	1	個別一般（西アフリカ米開発協会）



## 5. 持ち帰り資料一覧

### (1) メキシコ

- ・ INIFAP (Institut National of Investigaciones Forestory, Agriculture and Lecuaias (国立農牧林研究所)) 組織図、概要
- ・ 農牧・農村開発省からのデーター (1998年から1999年秋から冬期の播種、収穫に推薦する主要な作物品種と説明他)
- ・ JICAプロジェクト概要

### (2) ブラジル

- ・ ブラジル国における農牧林業の生産流通状況 ('93~'94)
- ・ ブラジル国における農牧研究機関の研究現状と方向
- ・ ITAL (Institute of Food Technology) 概要
- ・ CATI (Coordenation Integral Technical Assist) 紹介ビデオ
- ・ EMBRAPA (Empresa Brasileira de Pesquisa Agropecuaria (ブラジル農牧研究公社)) 概要





