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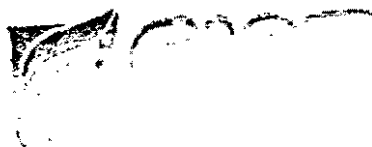
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INTERNATIONAL BEAN TRIALS

BROAD CLASSIFICATION OF CIAT INTERNATIONAL BEAN TRIALS

International Nurseries are experiments comprised of outstanding varieties, advanced lines, and germplasm accessions which are true breeding for key agronomic traits (growth habit, seed characteristics, maturity, etc.). All entries have data compiled from prior evaluations which qualify them for further testing under a wide range of environmental conditions.

International trials are uniform across locations and a nursery report is prepared and published every year. All data from international trials are computerized and stored, allowing data retrieval for specific information pertaining to specific regions and situations.

Breeding Nurseries are trials distributed to selected collaborators who have the manpower and environmental and program conditions necessary for utilization of breeding materials. Trials are not uniform across locations but take into account the requirements of the national programs individually.

I. INTERNATIONAL BEAN NURSERIES

CIAT International Bean Nurseries distributed from headquarters at Palmira are grouped in two broad categories:

A. Nurseries formed by advanced lines classified according to market classes

B. Specialized nurseries

CHOOSING THE RIGHT BEAN NURSERY FOR YOUR NEEDS

To help you decide the type of nursery you should request according to your needs, a brief description of the kinds of materials included in the two above-mentioned broad categories follows:

A. Nurseries formed by advanced lines classified according to market classes

Description: Lines included in these nurseries have resistances to at least two of the following seed-transmitted diseases:

- bean common mosaic virus (BCMV)
- common bacterial blight (CBB)
- rust
- anthracnose (ANT)
- angular leaf spot (ALS)

Potential users: Breeders, agronomists, pathologists, entomologists, and any other bean specialist who is willing to test ready-to-use non-segregating lines of any lines of any specific market class (see Table 1).

Types: These nurseries are of two types:

1. Observational Nurseries. Organized either by growth habit, market class, duration of growth period, or specific resistance to stresses, depending on specific requests.
2. Uniform Yield Nurseries. Entries are grouped by market class, growth habit, and in some cases by climatic adaptation. Table 2 shows the complete list of yield trials available.

B. Specialized nurseries

Description:	Nurseries for stress screening and identification of donor parents for specific traits. Nurseries include materials particularly useful for the objectives of the specific project, but they are not necessarily made up of lines with commercial grain types. The entries might not show resistance to other stresses.
Potential users:	These are specialized nurseries designed to fit the needs of researchers engaged in specific projects (disease or insect resistance, drought, etc.). These nurseries are directly organized by CIAT specialists and in most cases distribution is limited to researchers working with them in cooperative projects.
Types:	Disease and insect nurseries.

DETAILED LISTING OF CIAT INTERNATIONAL BEAN NURSERIES

A. Nurseries formed by advanced lines classified according to market classes

YIELD	IBYAN:	International Bean Yield and Adaptation Nursery
GENERAL OBSERVATIONAL	VEF:	Bean Team Nursery
	SBON:	Snap Bean Nursery

B. Specialized nurseries

MAJOR DISEASE NURSERIES:

IBAT International Bean Anthracnose Trial
BALSIT Bean Angular Leaf Spot International Trial
VIB International Bean Nursery for Common
 Bacterial Blight
IBRN International Bean Rust Nursery

MINOR DISEASE NURSERIES: (See Table 3)

INSECT NURSERIES:

VIA International Bean Apion Nursery
VIE International Bean Empoasca Nursery

GENERAL INFORMATION ABOUT THE INTERNATIONAL BEAN NURSERIES

<u>NAME</u>	<u># ENTRIES</u>	<u>DURATION</u>
IBYAN	16	1 yr
VEF	Variable	1 yr
IBAT	100	2 yr
BALSIT	100	2 yr
VIB	100	2 yr
IBRN	100	2 yr
VIA	100	1 yr
VIE	<30	1 yr

II. BREEDING NURSERIES

Description: Include crossing blocks, segregating materials, and adaptation nurseries according to each breeder's strategy.

Potential users: These nurseries are distributed only to breeders engaged in cooperative projects with CIAT breeders.

Types: Crossing blocks, segregating populations, and adaptation nurseries.

Those interested in these nurseries should contact directly the CIAT breeder working for their particular geographical area:

Julia Kornegay: Andean Zone, Africa

Shree Singh: Southern Cone, Highlands of Mexico, Asia

Stephen Beebe: Central America & the Caribbean, Mexican lowlands, Southern Brazil

REQUESTS AND SHIPMENT POLICIES FOR INTERNATIONAL BEAN TRIALS

FORMAT TO REQUEST NURSERIES

Requests can be made to the Program Leader (Dr. Douglas Pachico) or directly to the scientist who is coordinating each nursery. If you work in a country where there is a CIAT Regional Program, please process your request through (or send a copy of it to) the Regional Coordinator (Table 4).

<u>Coordinator</u>	<u>Type of nursery</u>	<u>Nursery name</u>
Oswaldo Voysest	Advanced lines	VEF-IBYAN
Marcial Pastor Corrales	Fungal & bacterial diseases	IBAT-IBRN-BALSIT, etc.
César Cardona	Insects	VIA-VIE
Julia Kornegay	Breeding & BCMV	IBCMBRN
Stephen Beebe	Breeding	
Shree Singh	Breeding	

It is always advisable to include in your request the following information:

- Intended planting date
- Precipitation and temperature during growing season
- Approximate elevation (masl) of the experimental site
- Main limiting factors for bean production
- Characteristics of the requested material:
 - Growth habit
 - Seed color & size or market class if possible
 - Resistance reaction desired for at most 3 of the following diseases: BCMV, CBB, rust, ANT, or ALS
- Shipping instructions:
 - Address (exactly as to be written in the seed package)
 - Special declaration, if any, in the phytosanitary certificate
 - Airport name and city of destination
 - Telex or Fax No., if available

Collaborators are supplied with field books enclosed in the seed box.

FORWARDING DATES

Trials are dispatched from CIAT via air mail five times during the year according to the intended planting date:

<u>Date of dispatch</u>	<u>Intended planting date</u>
January	From March to April
March	From May to June
July	From September to October
September	From November to December
November	From January to February

DISTRIBUTION POLICY

CIAT makes its nurseries available free of charge to any recognized bean research institution. Due to limited seed availability CIAT cannot guarantee that all requests for nurseries will always be met.

SEED SOURCE FOR INTERNATIONAL DISPATCHES

All seed for international dispatches is produced under irrigation at "La Carambola-San Carlos," a twelve-hectare farm located at Vijes, 48 kilometers from CIAT headquarters. Seed production fields are inspected by quarantine officials of the Colombian Institute of Agricultural Research (ICA) who, if they approve the seed, issue the corresponding phytosanitary certificate for all seed dispatches.

Color Group ¹	Market Class ²	Alternative names according to region			
		Latin America	Africa	West Asia	USA/Canada/Europe
1. White: plain	ALUBIA	Alubia		Koros	Lingot-Canellini
	CABALLERO	Bianco Grande, Caballero	Gros Blanc	Saker	White Marrow
	CRISTAL	Cristal			Fabada
	FABADA				Fabada
	GREAT NORTHERN			Dermeson	Great Northern
	NAVY	Arroz		Tombul	Pes, Navy
	SMALL WHITE WHITE KIDNEY	Blanquillo/Panamito		Sanelik	Small White White Kidney
1a. White	YELLOW-EYE				Soldier, Yellow-eye
2. Cream-beige: plain	BAYO ARRIFONADO	Bayo Arrifonado			
	BAYO CILINDRICO	Bayo Cilindrico			
	BAYO GORDO	Bayo Gordo			
	BAYO REDONDO	Bayo Redondo			
	BICO DE OURO MULATINHO	Bico de Ouro Mulatinho			
2a. Cream-beige: speckled	CARGAMENTO	Cargamento			
	CARIOCA	Carioca			
	CRANBERRY	Cacahuete	Speckled Sugar	Barbunys	Soriotto, Cranberry
	OJO DE CABRA	Ojo de Cabra			
	PINTO	Pinto	Mittemnia		Pinto
	SMALL SUGAR ZEBRA		Karyebwa, Small Sugar Mukinga/Namurya, Zebra		
3. Yellow: plain	LARGE YELLOW	Amerillo Grande			
	AZUFRAO	Azufrao			
	CANARIO ECUATORIANO	Canario Bolón			
	CANARIO MEXICANO	Burro, Manteca, Jalo			
	CANARIO PERUANO	Azufrao Peruano			
	SMALL YELLOW GARBANCILLO	Amerillo Pequeño Jalinho	Doré de Kirundo		

Continued...

Table 1. Continued...

Color Group ¹	Market Class ²	Alternative names according to region			
		Latin America	Africa	West Asia	USA/Canada/Europe
3a.	Yellow: speckled	LIBORINO	Liborino	Urunyamba	
4.	Brown-maroon	BROWN MAROON		Brown Maroon	
5.	Pink: plain	LIGHT RED KIDNEY PINK ROSIHA	Rosita, Rosinha		Light Red Kidney Pink
5a.	Pink: speckled	FLOR DE MAYO MISS KELLY	Flor de Mayo Miss Kelly, Andino Sabanero	Capira	
6.	Red: plain	CANADIAN WONDER DARK RED KIDNEY RADICAL SANGRETORO RED MEXICAN SMALL DARK RED, OPAQUE SMALL DARK RED, SHINY SMALL LIGHT RED, OPAQUE SMALL LIGHT RED, SHINY SMALL RED, SHINY	Bota Roja, Radical Sangretoro	Gyuru, Canadian Wonder Kayinja Red Haricot Nassi red	Dark Red Kidney Red Haricot
6a.	Red: speckled	CALIMA GUALI POMPADOUR TUNDAMA	Calima Guali Pompadour Tundama	Rose Coco-Kabele Rose Coco Rose Coco Rose Coco	
7.	Purple	NORADO NWEZI MOJA	Norado	Kempulike Nwezi Moja	

Continued...

Table 1. Continued...

Color Group ¹	Market Class ²	Alternative names according to region			
		Latin America	Africa	West Asia	USA/Canada/Europe
8. Black	IKINIMBA NEGRO, OP-ROUE NEGRO, SHINY	Prato/Caracota Negra Negro, opaque Negro, shiny	ikininba		Black Turtle Soup
9. Others	COCORRON INYUMBA TORTOLA URUBONOBONO	Cocorrón Tórtola	Inyumba Urubonobono		
10. Snap beans (habichuelas)	ROUND-PODDED FLAT-PODDED WAX				Romero

¹ Numbers refer to the nine CIAT color groups.

² Name adopted by CIAT

Table 2. List of yield trials (IBYAN) available.

Climates and trial identification		Market class
<u>BUSH BEAN</u>		
<u>Moderate warm & medium climate</u>		
2-8900 A	Cream-mottled beans	Cranberry
2-8900 C	Cream-striped beans	Carioca
2-8900 D	Cream	Mulatinho
5-8900 A	Pink beans	Red Kidney
5-8900 B	Pink-mottled beans	Miss Kelly/Capira
6-8900 A	Red beans	Dark Red Kidney
6-8900 B	Red beans	Small Red
6-8900 C	Red-mottled beans (6M)	Rose Coco/Calima
6-8900 D	Red-mottled beans (7M)	Rose Coco/Guali
6-8900 E	Red-mottled beans (6M)	Pompadour
8-8900 A	Black beans	Black Turtle
<u>Medium climate</u>		
1-8900 A	White beans	Alubia/White Kidney
1-8900 B	White beans	Great Northern & Whites
1-8900 C	White beans	Navy/Small White
2-8900 B	Cream-mottled beans	Pinto
3-8900 A	Yellow beans	Canary Yellow
<u>Moderate-cool climate</u>		
6-8900 F	Red-mottled beans	Various types
<u>CLIMBING BEANS</u>		
<u>Moderate-cool climate</u>		
2-8900 E	Cream-mottled beans	Cargamanto
3-8900 B	Yellow and white beans	Liborino & Panamito
6-8900 G	Red and Red-mottled beans	Radical/Calima
8-8900 B	Black beans	Negro

Table 3. Minor disease nurseries^a.

Nursery name	No. of entries
BRRIN Bean Root Rot International Nursery	50
VIMFO <u>Fusarium oxysporum</u> Bean Wilt International Nursery	30
VIPRS <u>Rhizoctonia solani</u> Bean Rot International Nursery	40
MOBLAF Bean White Mold International Nursery	46
VIMP <u>Macrophomina phaseolina</u> International Nursery	30
IBABN International Bean Ascochyta Blight Nursery	21
IBNHB International Bean Nursery for Halo Blight	40
IECMERN International Bean Common Mosaic/Black Root Nursery	98

^a For distribution only to special project collaborators.

Duration of each nursery is two years.

Table 4. CIAT Regional Bean Programs.

Regional Program	Coordinator	Address
Eastern Africa	Roger Kirkby	ILCA Attn: CIAT Bean Programme P.O. Box 5689 Addis Ababa, Ethiopia
Central Africa	Urs Scheidegger	ISAR/Rubona Projet CIAT B.P. 259 Butare, Rwanda
Southern Africa	David Allen	SADCC/CIAT Regional Programme on Beans in Southern Africa Selian Research Centre P.O. Box 2704 Arusha, Tanzania
Central America & Caribbean	Michael Dessert	CIAT/IICA Apartado 55, 2200 Coronado San José, Costa Rica
Brazil & Southern Cone	Michael Thung	EMBRAPA/CNPAF Caixa Postal 179, 74.000 Goiânia, Goiás, Brasil
Andean Region	Guillermo Gálvez	CIAT/IICA Apartado 14-0185 Lima 14, Perú

FORMAT FOR SEED REQUEST

<u>Type</u>	<u>Name</u>	<u>Seed color or Market class</u>	<u>Pod shape</u>	<u>Growth habit</u>	<u>Climate</u>	<u>Resistance to 3 diseases</u>	<u>No. of sets</u>
ADVANCED LINES							
General observational	VEF	_____		_____		_____	_____
		_____		_____		_____	_____
		_____		_____		_____	_____
		_____		_____		_____	_____
	SBOH		_____	_____		_____	
Yield	IBYAN	_____		_____	_____	_____	_____
		_____		_____	_____	_____	_____
		_____		_____	_____	_____	_____
		_____		_____	_____	_____	_____

SPECIALIZED NURSERIES

Diseases

IBAT
BALSIT
VIB
IBRN
BRRIN
VIMFO
VIMPRS
MOBLAF
VIMP
IBARN
IBNHB

Insects

VIA
VIE

BREEDER'S NURSERIES

Crossing blocks _____
Segregating populations _____
Adaptation nurseries _____

Shipping instructions:

Address _____

Airport city _____

Special declaration in Phytosanitary Certificate Yes _____ No _____
(circle and include statement if pertinent)

Telex no. _____ Fax no. _____

General information:

Planting date _____

Average temperature in growing season _____

Average rainfall in growing season _____

Altitude (masl) _____

Main diseases _____



FORMAT FOR SEED REQUEST

Type	Name	Seed color or Market class	Pod shape	Growth habit	Climate	Resistance to 3 diseases	No. of sets
ADVANCED LINES							
General observational	VEF	_____		_____		_____	_____
		_____		_____		_____	_____
		_____		_____		_____	_____
		_____		_____		_____	_____
	SBN		_____	_____		_____	
Yield	IBYAN	_____		_____	_____	_____	_____
		_____		_____	_____	_____	_____
		_____		_____	_____	_____	_____
		_____		_____	_____	_____	_____

SPECIALIZED NURSERIES

Diseases	IBAT						_____
	BALSIT						_____
	VIB						_____
	IBRN						_____
	BRRIN						_____
	VIMFO						_____
	VIMPRS						_____
	MOQLAF						_____
	VIMP						_____
	IBABN						_____
	IBNHB						_____
Insects	VIA						_____
	VIE						_____

BREEDER'S NURSERIES

Crossing blocks							_____
Segregating populations							_____
Adaptation nurseries		_____			_____		_____

Shipping instructions:

Address _____

Airport city _____

Special declaration in Phytosanitary Certificate Yes _____ No _____
(circle and include statement if pertinent)

Telex no. _____ fax no. _____

General information:

Planting date _____

Average temperature in growing season _____

Average rainfall in growing season _____

Altitude (masl) _____

Main diseases _____