N_2Africa: Overview, Workshop Objectives & Expected outputs

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ILRI-N2Africa
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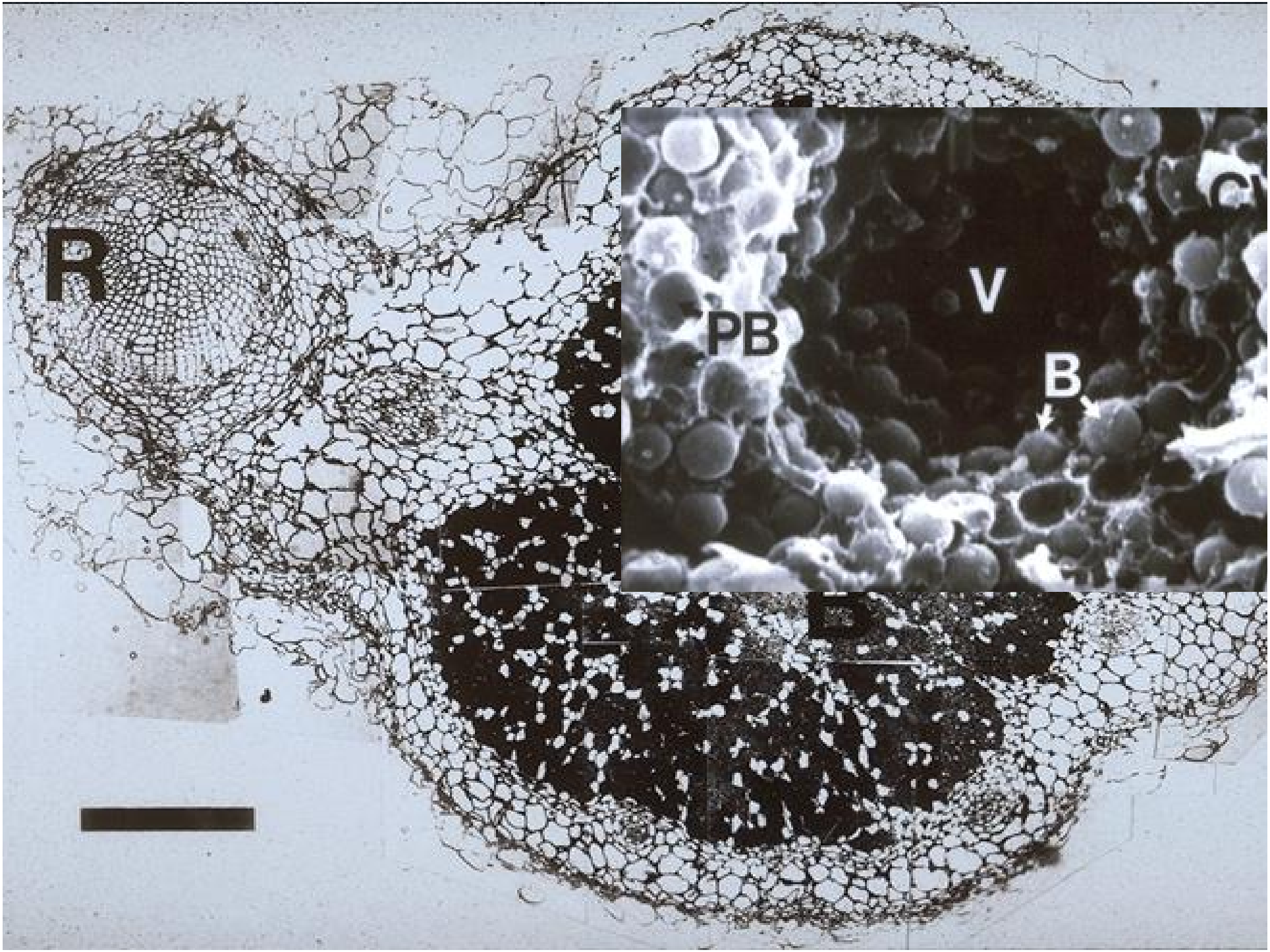
N2Africa new introduction clip.mov


R
V
PB
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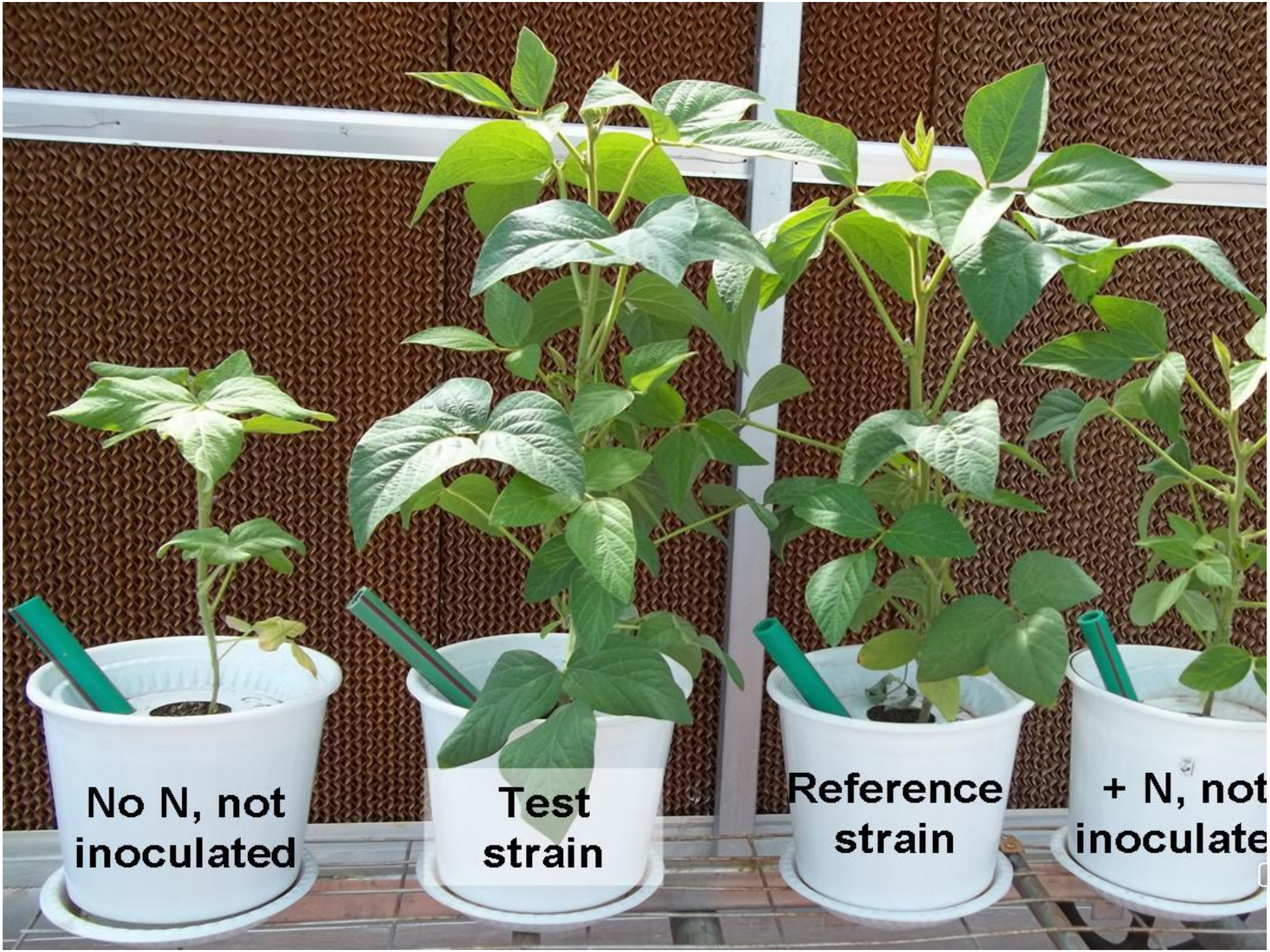
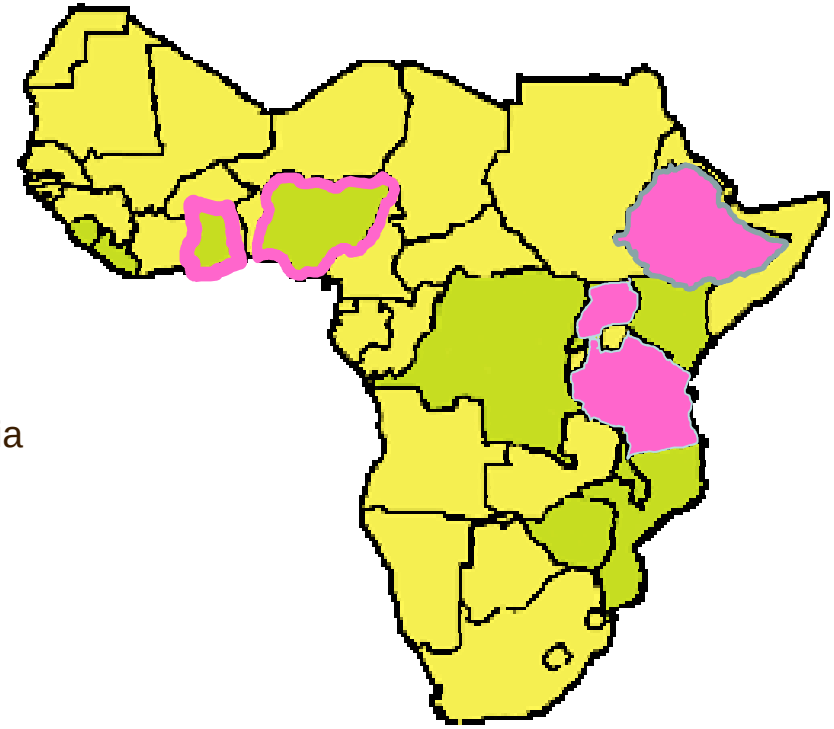

No N, not inoculated
Test strain
Reference strain
+ N, not inoculate

N2Africa – a pan African project

- Funded by Bill & Melinda Gates Foundation
- Led by Wageningen University; partners IITA and ILRI; many national partners
- Originally eight countries in 2009
- Extension in 2013 to Ethiopia, Tanzania, Uganda (Bridging Grant)
- Phase II:
  - Core countries : Ethiopia, Ghana, Nigeria, Tanzania and Uganda
  - Tier Countries: DRC, Kenya, Malawi, Mozambique Rwanda, Zimbabwe



N_2Africaôs *Vision of Success*:

- Build sustainable, long-term partnerships to enable smallholder farmers to benefit from symbiotic N_2-fixation by grain legumes through effective production technologies including ***inoculants*** and ***fertilizers***.

  The legacy will be a strong national expertise in **grain legume production** and **N_2-fixation research** and development.

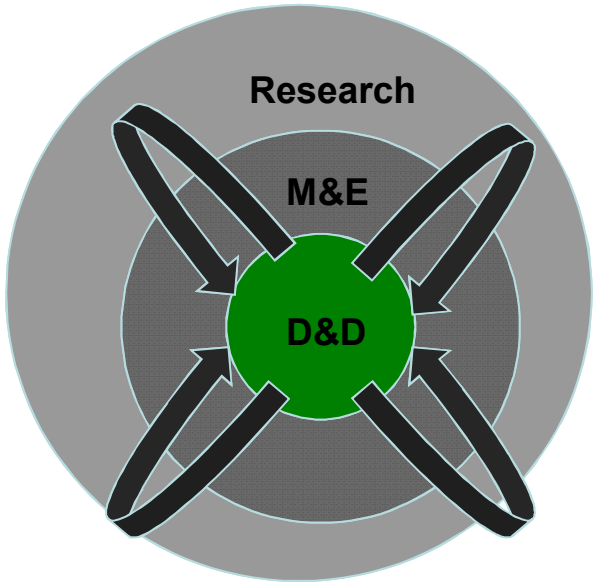
Increasing inputs from N_2-fixation: main Goal

- ❖ Increase the area of land cropped with legumes (targeting of technologies)
- Å Increase legume productivity (agronomy, P-fertilizer)
- Å Select better legume varieties
- Å Select better rhizobium strains and inoculate
- Å Link to markets and create new enterprises to increase demand for legumes

Master plans

- Are documents intended to foster a common approach across all of the Core Countries (Eth., Ghana, Nigeria, Tanzania Uganda)
- Designed to achieve the N2Africa Vision of Success and the Research Framework of the project

  - Agronomy master plan
  - Dissemination MP
  - Gender MP
  - Rhizobiology MP
  - M & E and data management MP
  - Communication MP
  - Platforms MP - PPPs



N2Africa is a development to research project
- Dissemination and development are the core
- Monitoring & evaluation provides the learning
- Research analyses and feeds back

Genotype × Environment × Management

$$(G_L \times G_R) \times E \times M$$

Where:

G_L = legume genotype

G_R = rhizobial strain

E = environment

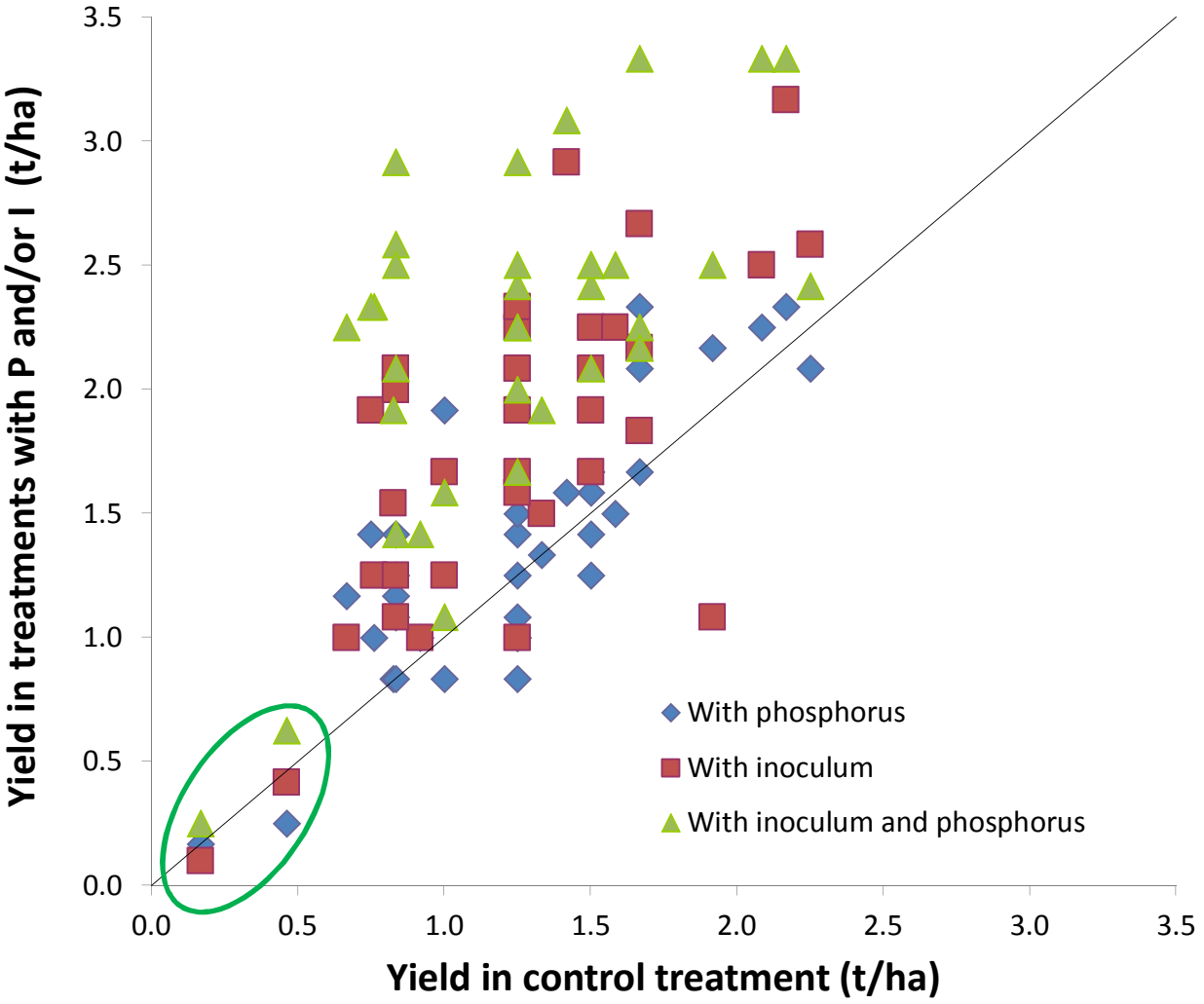
- climate (temperature x rainfall x daylength etc) ï to encompass length of growing season etc.
- soils (nutrient limitations, acidity and toxicities)

M = management

- agronomy ï inoculation, seeding rates, plant density (row spacing etc.), weeding, P fertilizer
- (diseases and pests are also a function of *G* x *E* x *M*...)

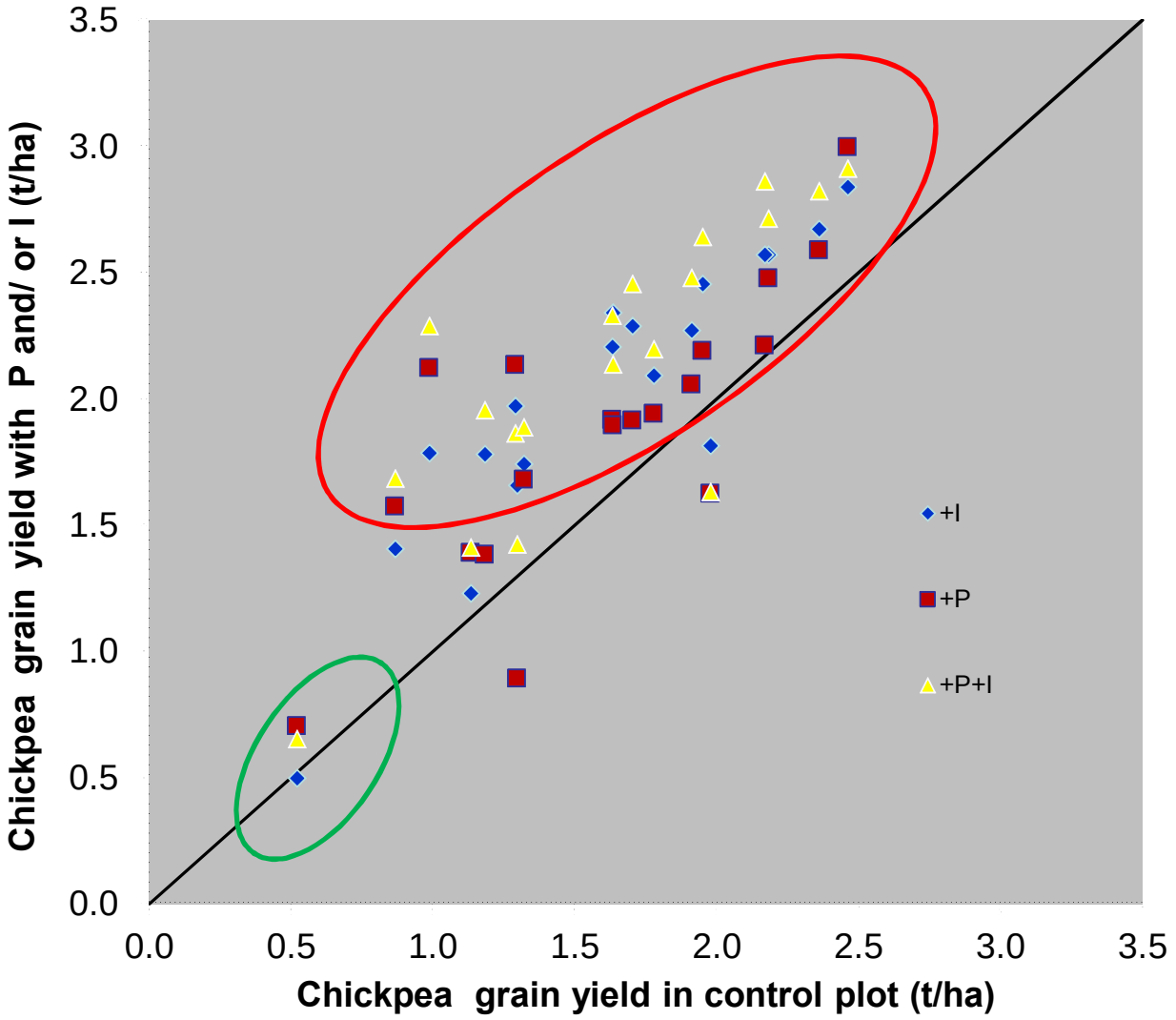

control
+Pfert
+ino
+Pfert+ino

Response to P and inoculation with soybean in DRC



N_2Africa demonstration trial results in Mushomo, Sud Kivu, DRC 2010

Response to P and inoculation with Chickpea, Damote-Gale, Ethiopia

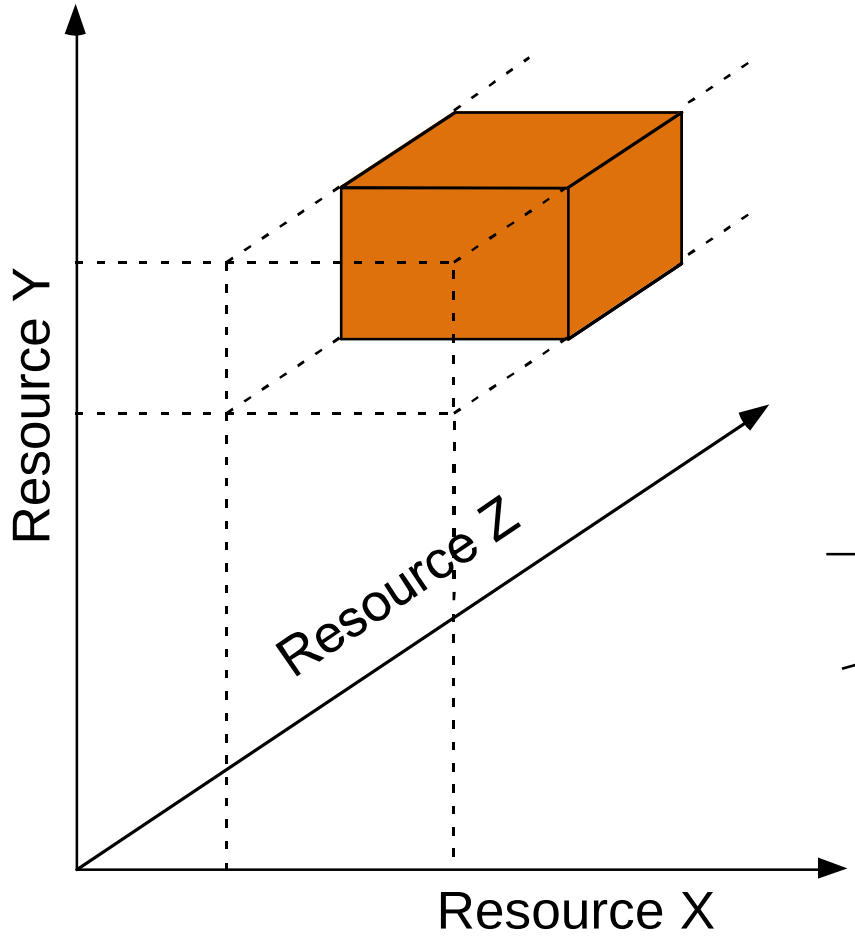


Non- or Poorly-responsive soils

E x M is Overriding

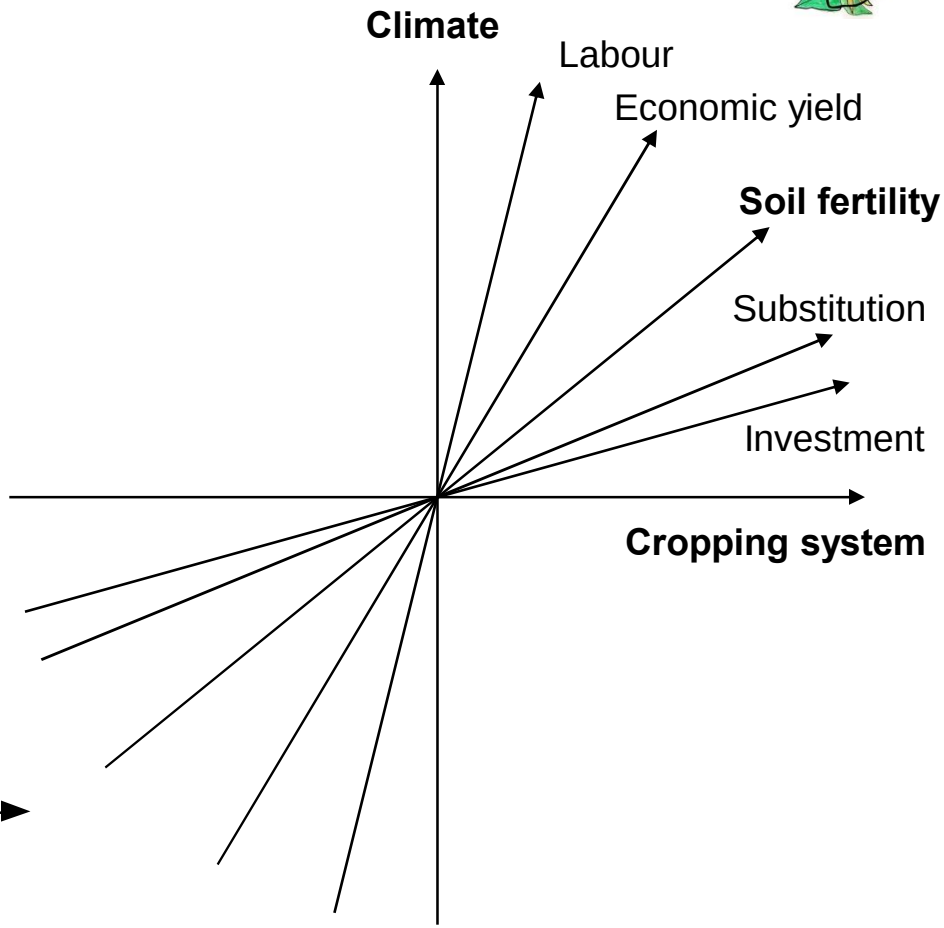
Researcher led -Agronomy

The ónicheô for legumes



The niche as an ón-dimensional hyperspace

The socio-ecological niche



The legume ónicheô has **agroecological** and **socioeconomic** dimensions

Public-Private Partnership

Kenya – PROMISADOR (South Africa) contracts for 4000 tonnes of smallholder soybean by 2012; partnership TSBF – PROMISADOR – SMART LOGISTICS - SEEDCO

PROMASIDOR

SEED-CO
The African Seed Company

PPPs - Ethiopia

Yanet Shiro

- Technoserve
- Guts Agroindustry
- ACOS Ethiopia
- Alema Koudjits
- MBI
- CAFS
- LVIA
- Menschen for Menschen
- Gadissa Commercial Farm Products Plc.
- Anno Agroindustry Plc
- Hunde Chewaqa Farmers Coop, Union
- CRS Ethiopia
- Belay Agricultural Dev't Plc.
- Tsehay Farmers Coop. Union
- Balegreen Spice & Grain Dev't Plc.
- Sidama Elto Union
- Uta Wayu Union
- EPOSPEA
- ACDI-VOCA
- SNV
- Agriterra
- Ada'a Union
- Admas Union
- Wedera Union
- Becho Woliso Union
- Awash Melka Union
- IFDC-2SCALE

Activities empowering women farmers

Training on soybean processing for home utilization and local marketing

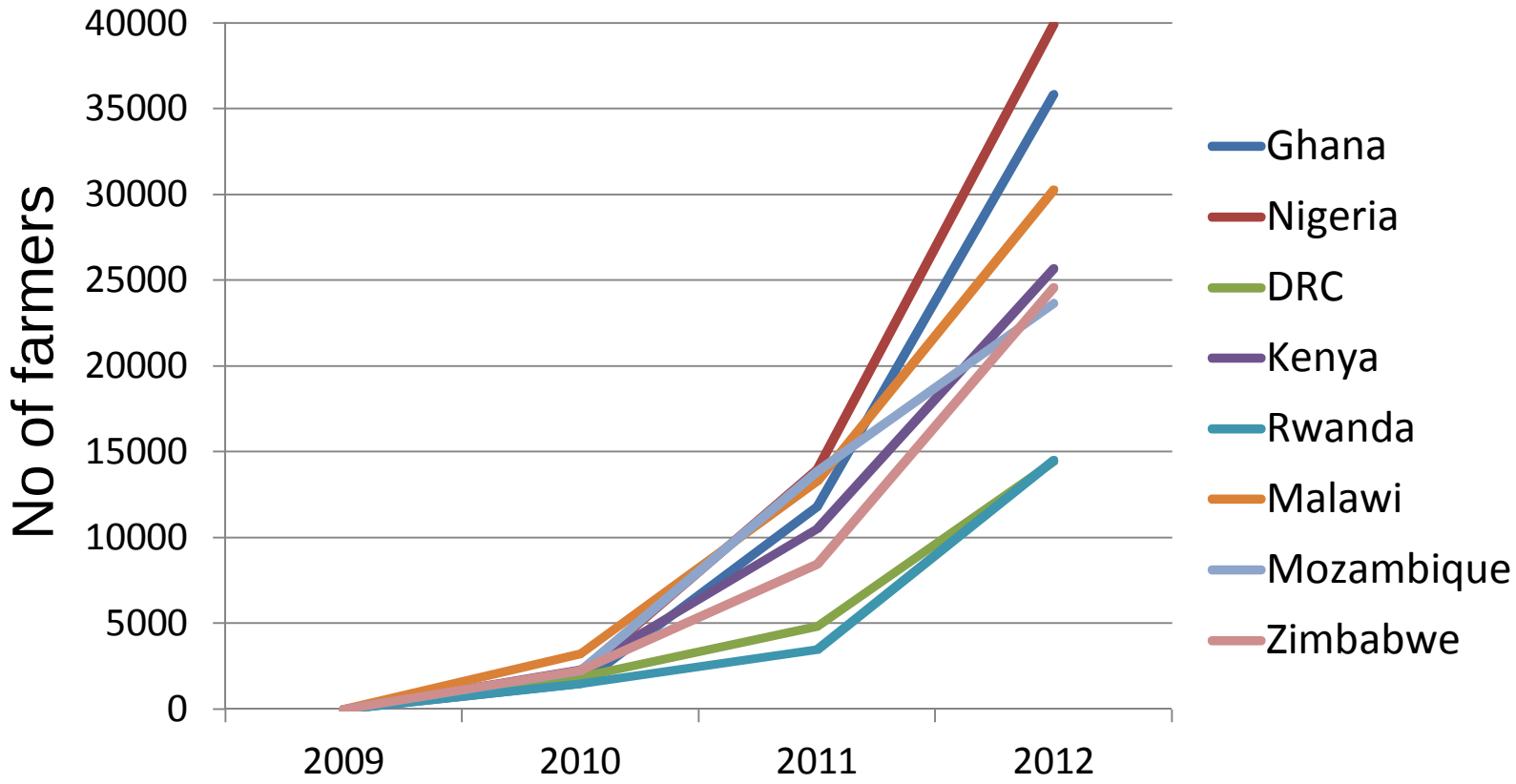
Veronique: Trained Trainer of Soybean Processing and Value Addition. She said: ðNow I can choose the husband I want to marryò

Aida: Lead Farmer and Community Leader. She said ὂnoculating my soybean makes a difference on the yield qualityὸ

Merema: N2Africa Adaptation Farmer, at Adje. said ðnoculating my common bean makes a difference on the yield quality, will alwyas use inoculantsò

Number of farmers reached

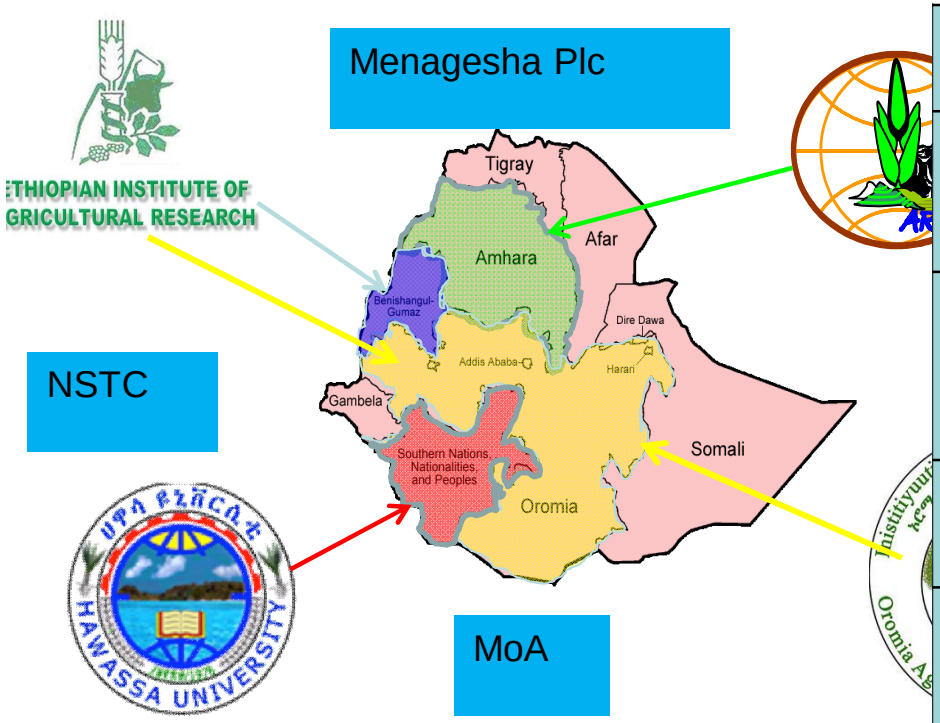
Total	0	17055	80301	208925



Based on M&E for each crop and country - updated 10 Dec 2012

N2Africa-Ethiopia – overview of 2014

Å N2Africa-led dissemination campaigns in the context of D4R learning cycles



Partner Institute	Implementing Center	Target Region	Name & Number of Woredas	Target crop	PLANNED (No. of farmers)
ARARI	Adet ARC	Amhara	Yilmana Densa, Farta, Enemay (3)	F. bean & C. pea	450
	Gondar ARC	Amhara	Dabat, Debark, Gonder Zuria(3)	F. bean& C. pea	300
OARI	Bako ARC	Oromia	Wayu Tuka, Bako Tibe, Gobu Sayo, Sibu Sire, Chewaka, Illu Gelan (6)	C. bean & soybean	1100
	Sinana ARC	Oromia	Sinana, Goba, Agarfa (3)	F. bean	600
HWU	HwU	SNNPR	Boricha, Halaba, Damot Gale, Meskan (4)	C. bean & C. pea	1000
EIAR	Malkasa ARC	Oromia	Shala (1)	C. bean	350
	Pawe ARC	B-Gumuz	Mandura, Pawe, Dibate, Jawi (4)	C. bean & soybean	700
	Debre-Z. ARC	Oromia	Ada'a, Gimbichu (4)	Chickpea	400
	Jima ARC	Oromia	Kersa (1)	Soybean	325
Total			(27)		5225

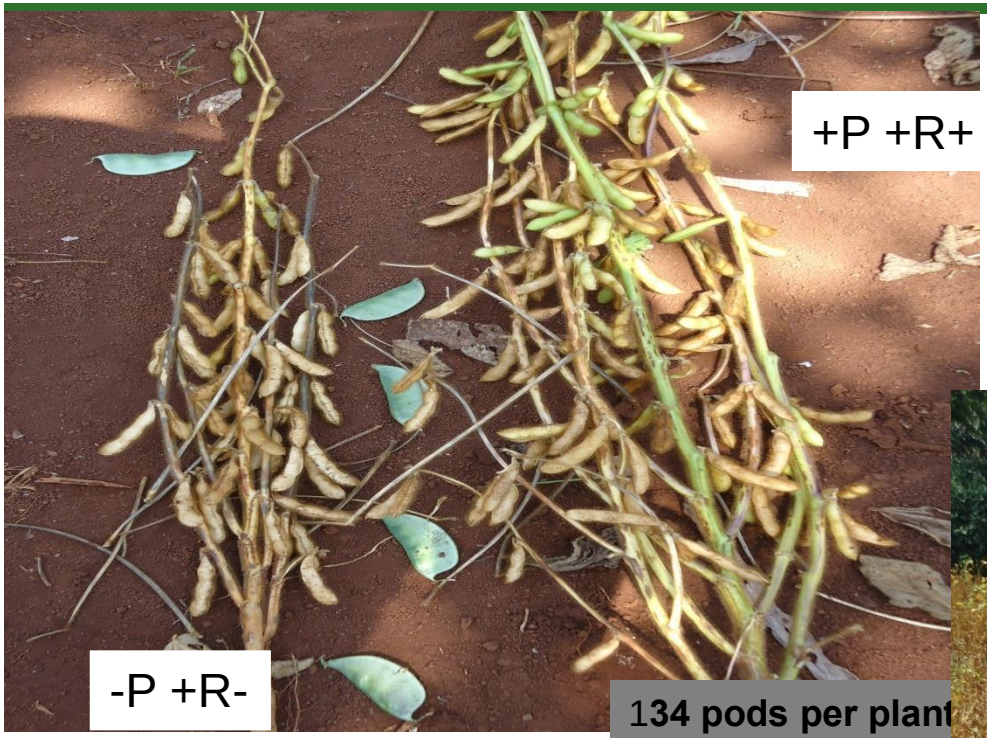
- Planned # of farmers = **5225**,
- *Researcher managed Agronomy Long-term trials = 5*
- Actual reached # of farmers = **4008** [Diagnostic = 393, Demonstration = 423, Adaptation= 3192],

Faba bean in Amhara, Dabat (ARARI ï GoARC)

Ato Adugna: ñPlants in my inoculated plot were healthy and had better resistance to diseaseò

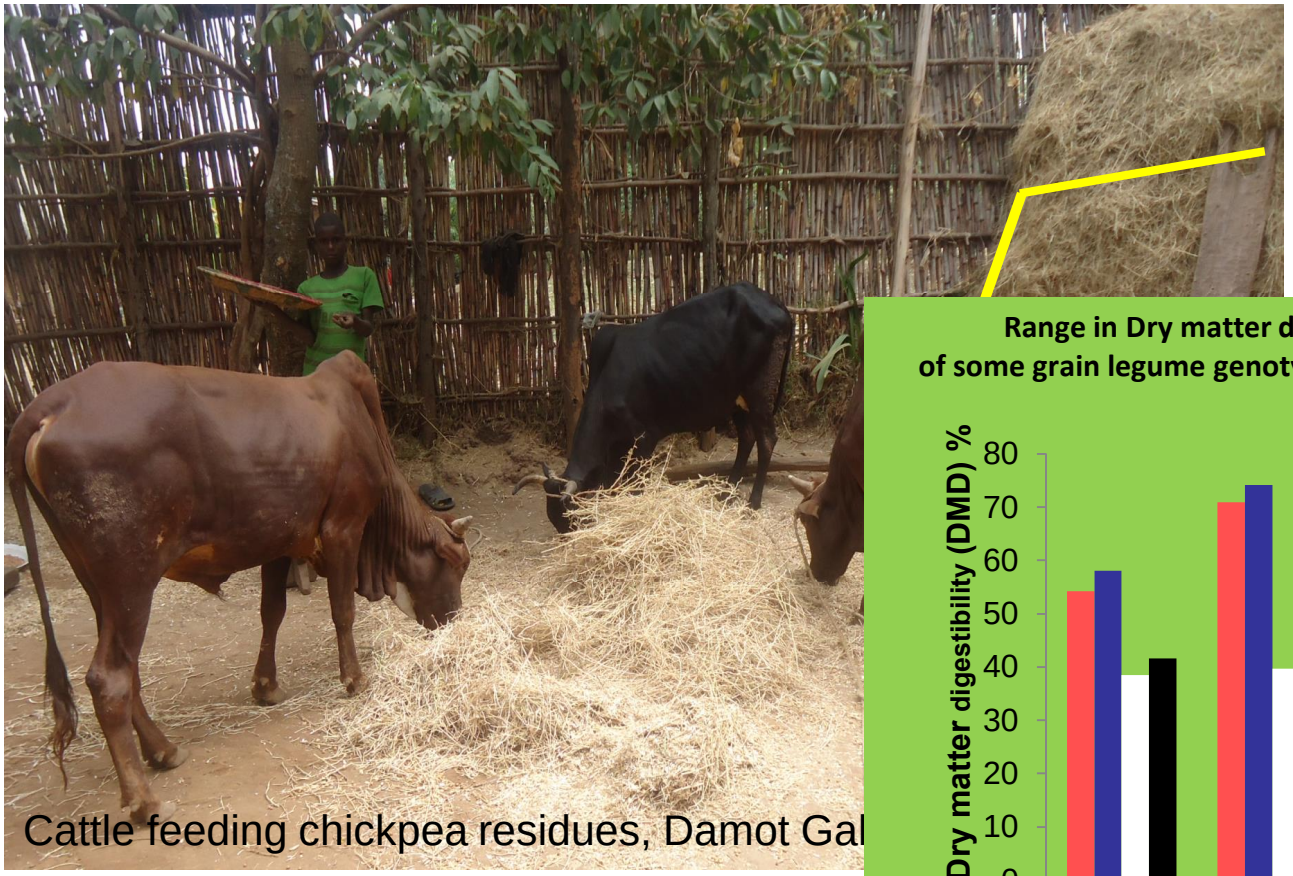

+I +P
-I -P
Adje. EIAR

Soybean ï Oromia (BARC)

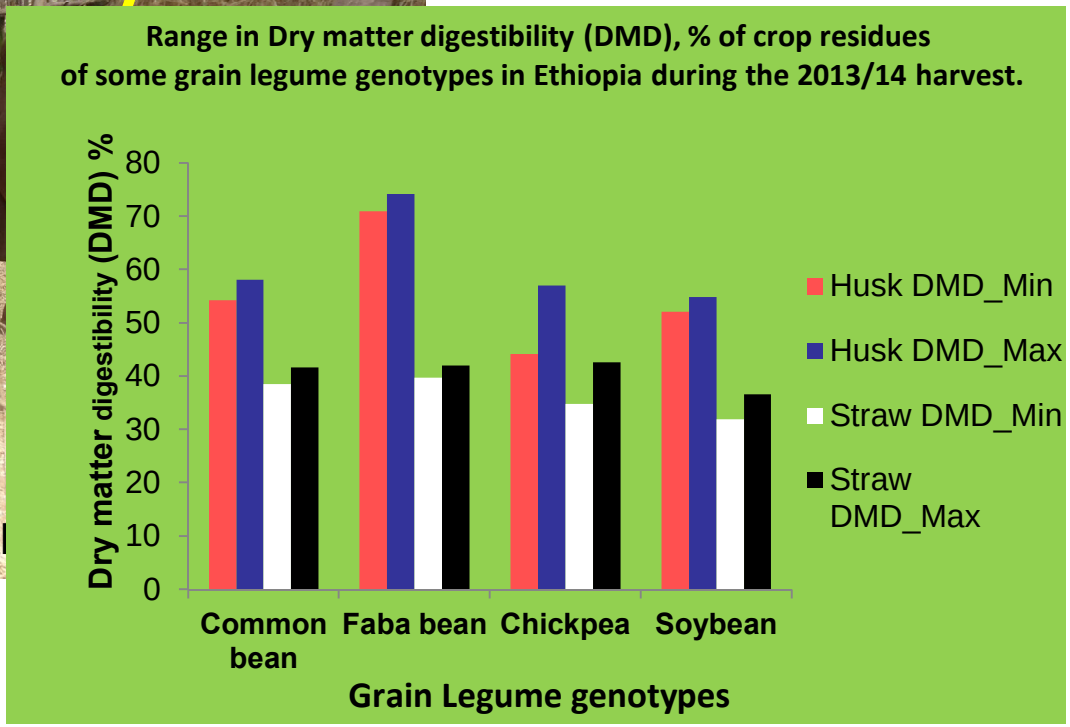


Chickpea in Amhara, G. Zuria (ARARI ï GoARC)

Legume residue for livestock feed



Cattle feeding chickpea residues, Damot Gal



N2Africa-Ethiopia – 2015

Number of direct and indirect beneficiaries targeted in the Core Countries.

Country	Legume	Phase I	2010	2011	2012	2013	2014	2015	2016	2017	2018
Nigeria	**Direct**	37,500				37,500	43,750		56,250	62,500	62,500
[phase I and II priority]	**Indirect**	-				-	5,000		20,000	40,000	80,000
	TOTAL:	**37,500**				**37,500**	**48,750**		**76,250**	**102,500**	**142,500**
Ghana	**Direct**	37,500				37,500	43,750		56,250	62,500	62,500
[phase I and II priority]	**Indirect**	-				-	5,000		20,000	40,000	80,000
	TOTAL:	**37,500**				**37,500**	**48,750**		**76,250**	**102,500**	**142,500**
Ethiopia	**Direct**	-				-	6,250		18,750	25,000	25,000
[phase II priority]	**Indirect**	-				-	-		10,000	20,000	40,000
	TOTAL:	-				-	6,250		28,750	45,000	65,000
Uganda	**Direct**	-				-	6,250		18,750	25,000	25,000
[phase II priority]	**Indirect**	-				-	-		10,000	20,000	40,000
	TOTAL:	**-**				**-**	**6,250**		**28,750**	**45,000**	**65,000**
Tanzania	**Direct**	-				-	6,250		18,750	25,000	25,000
[phase II priority]	**Indirect**	-				-	-		10,000	20,000	40,000
	TOTAL:	**-**				**-**	**6,250**		**28,750**	**45,000**	**65,000**

What N2Africa means for Ethiopia

- Increased legumes productivity and income
- Improve nutritional status of beneficiary women and children
- Gender sensitive decision making enhanced (sales and control of productive assets for legume production)
- Sustainable use of natural resources (improved yield of subsequent crops)
- National capacity to lead emerging legumes technologies for smallholder farmers development
- Sustainable input supply systems for legumes at national level

Expected outputs of this workshop

1. Create awareness and look for more partnership
2. Introduce the PPP models and validate
3. Review project progresses in 2014
4. The implementation approaches will be discussed & agreed
5. Plan project activities for the 2015

Thank You