The Democratic Republic of Timor-Leste
Ministry of Agriculture and Fisheries

National Seed System for Released Varieties

Providing the farming families of Timor-Leste with secure access to quality seed

Contents

"I'm happy.

I'm contracted by the Ministry of Agriculture and Fisheries to grow Ai-luka 2 & 4 cassava cuttings on my land for the ministry to buy.

I then use the leaves and tubers for home consumption, to sell at the market and for pig feed. When the pigs grow up I sell them for up to $200.

With this income from growing cassava and pig farming I've been able to send my children to school and support my family.

That's the reason I'm happy."

Behind: Filomeno da Cruz in his cassava field in Viqueque (Photo: Jessy Betty). Cover image: Members of the all-women contract grower group in Natarbora with packets of their certified Noi Mutin maize seed (Photo: Jessy Betty).

Summary

The National Seed System for Released Varieties will provide the farming families of Timor-Leste with secure access to quality seed

Quality seed is needed if Timor-Leste's farming families are to have enough to eat

The Ministry of Agriculture and Fisheries (MAF), through the Seeds of Life program, has been working to increase food production in Timor-Leste by researching and releasing improved varieties of staple crops (maize, rice, cassava, sweet potato and peanut) for the past 14 years.

The 12 varieties released to date have 24-131% higher yields than commonly used local varieties. These new varieties are adapted to local conditions and can be saved for replanting the next season, meaning farmers can grow more food. The varieties not only produce more, they give farmers more choice over the crops they plant and help increase biodiversity in Timor-Leste.

To ensure farmers can access these varieties, the Ministry has established the **National Seed System for Released Varieties (NSSRV)** so that sufficient quantities of high quality seed are produced locally and made available in every *suco,* ensuring farmers have reliable access to good seed at planting time.

The vision is for enough seed of improved varieties to be produced locally to meet up to one-third of total national seed demand, thus helping Timor-Leste to achieve seed security and sovereignty.

Above: Martinha da Costa Boavida, chief of *Moris Foun* community seed production group in Baucau shows some of her group's Hohrae 1 sweet potato cuttings (Photo: Alexia Skok)

Servicing farmers with secure access to good seed of improved varieties results from all components of the national seed system working together.

1 Seed system management
MAF determines research priorities for the coming year based on farmer feedback. They also monitor seed demand and supply to set production targets for the coming year.

2 Crop identification & development
MAF identifies, selects and develops superior food crop varieties for official release after extensive testing on research stations and with farmers.

3 Seed production & quality control
MAF, contract growers, commercial seed producers and community seed production groups locally produce various classes of seed according to strict quality control guidelines.

Productive varieties = more food for farmers

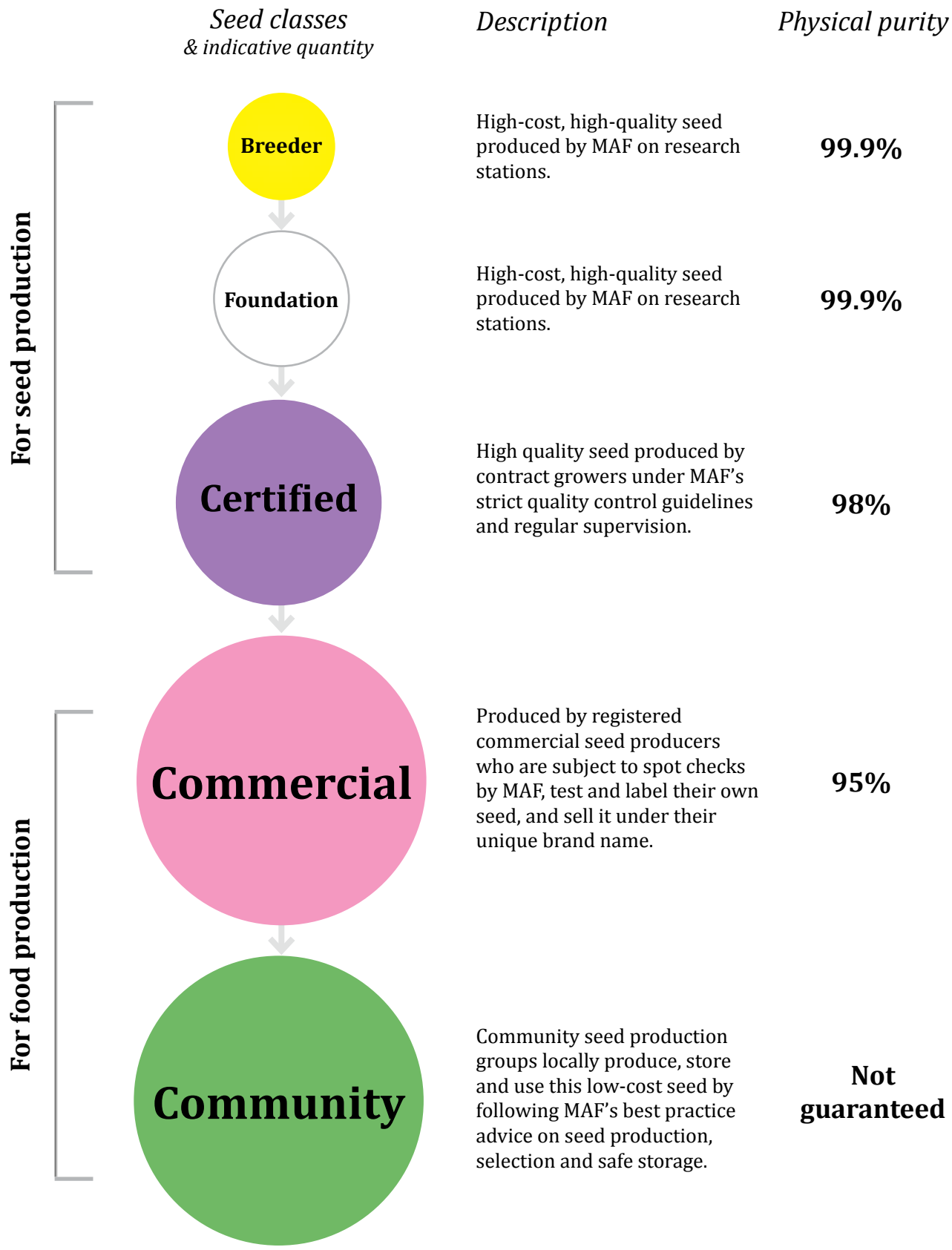
The improved varieties are:

1. **Superior** in some way, be it higher-yielding, more nutritious, tasty or more resistant to wind, drought or disease
2. **Public domain** so farmers will never have to pay for using them
3. **Rigorously tested** for at least five cropping seasons on research stations and farmers' fields to ensure they are adapted to local conditions and traditional farming practices
4. **Productive in and of themselves** - no extra inputs are required such as fertilisers and expensive equipment to get good results
5. **Pure line or open-pollinated varieties**, none of which are hybrid or genetically modified. Farmers can save and replant the seeds year after year.

Right: A farmer displays some of their Utamua peanut harvest. Utamua has a 47% yield advantage over other peanut varieties (Photo: Conor Ashleigh)

Multiplying seed to make it accessible to farming families

For the benefits of the improved varieties to reach farmers, enough seed must be produced for commercial and community spread. The figure below shows how this is done by multiplying seed from class to class. The circles represent the quantity of seed for each class.



About the seed system

The National Seed System for Released Varieties has been established to provide the farming families of Timor-Leste with secure access to good, locally-produced seed and planting materials. These will be available in *sucos* and *aldeias at planting time, thereby improving food security and seed sovereignty.**

The National Seed System operates according to the National Seed Policy, which was collaboratively developed and endorsed by the Ministry of Agriculture and Fisheries in 2013.

Twelve varieties of maize, rice, sweet potato, cassava and peanut have been released to date, all after rigorous testing. These high-yielding varieties produce substantial on-farm benefits and help increase biodiversity in Timor-Leste. Research continues on stations and farms to identify new varieties for release.

Increasing access to these improved varieties at the *suco*-level means farming families avoid having to use seed varieties not well suited to growing conditions in Timor-Leste. Instead they benefit from using improved varieties that are higher yielding, more nutritious and adapted to the local environment. This helps to reduce their risk of suffering a food shortage.

To meet this seed demand, MAF works with Timorese farmers to build capacity to produce seed locally. By purchasing this seed the Timor-Leste Government can save money by not having to buy, store and distribute imported seed. Local purchases of seed by MAF and commercial traders will return much-needed cash to rural Timorese farmers and provide new business opportunities for the emerging commercial agriculture sector.

A representative National Seed Council oversees implementation of the seed system and policy, and is charged with leading the development of appropriate Seed Regulations and a comprehensive National Seed Law.

Ultimately, the national system will help the Timor-Leste Government achieve seed security and seed sovereignty, and help farmers grow more food.

* In the Tetum language *suco* means village and *aldeia* means hamlet

Above: These farming family members from Maliana, Bobonaro district, are happy to be growing Sele maize (Photo: Alexia Skok)

Yield advantages of varieties

The seed system currently includes the following 12 varieties that have been released by the Ministry following extensive testing. Their yield advantages over other varieties are listed below.

On average farmers estimate a 57% yield increase using improved varieties compared to other varieties

Utamua
peanut

47%

Large peanuts, stable growing capabilities, tolerant to late leaf blight

Nakroma
rice

24%

Excellent eating rice, semi-fragrant

Hohrae 1
sweet potato

102%

White flesh, moist texture, can be grown at all elevations, sells for a good price

Hohrae 2
sweet potato

91%

Cream flesh, crumbly texture, a good breakfast sweet potato, tasty young leaves

Hohrae 3
sweet potato

131%

Orange flesh, moist texture, very high in vitamin A, sells for a good price

Ai-Luka 1
cassava

43%

Non-fibrous tasty roots, bitter variety, good for industrial use

Ai-Luka 2
cassava

46%

Non-fibrous tasty roots, excellent eating variety

Ai-Luka 4
cassava

15%

Non-fibrous tasty roots, slightly bitter

Sele
maize

50%

Yellow maize, sweet when picked early, resistant to strong winds and drought, requires airtight storage

Noi Mutin
maize

46%

White maize, suitable for all areas, good cooking & eating qualities, requires airtight storage

Suwan 5
maize

54%

Yellow maize, requires airtight storage

Nai
maize

50%

Yellow maize, requires airtight storage

Vision for the seed system

The vision of the National Seed System for Released Varieties is for enough seed of improved varieties to be produced each year to meet up to one-third of total national demand.

This 'one-third rule' is the internationally accepted standard for the amount of improved varieties in a seed system. This is to ensure crop biodiversity is maintained across all agro-ecological zones.

Currently, around 90% of the seed farmers sow comes from traditional local sources including farmers' own stocks, the village market or barter and exchange with friends and relatives. The NSSRV will exist alongside this informal seed system by giving farmers more seed options while allowing the traditional system to keep expanding.

A lesser amount of seed - around 12% - is sourced from larger township markets. In response to this demand, a number of agro-dealers have begun operating. This emerging agribusiness sector will be encouraged to develop to diversify the channels where farmers access seed.

To ensure equal access of all farmers to released improved varieties, strategies to reach vulnerable farmers are being explored including a voucher system, free seed for vulnerable households, seed fairs and sale of seed in small packets.

A number of new varieties currently being researched will soon be released. These include more marketable local varieties of red rice and purple sweet potato; high-protein legumes such as winged bean and mung bean; and other nutrient-dense food crops. The inclusion of local varieties in the National Seed System will help maintain biodiversity in Timor-Leste and ensure farmers have secure access to a diverse range of quality seeds.

Above: Members of the *Lacabasi* commercial seed producer group at work in Meligo, Bobonaro district (Photo: Alexia Skok)

Currently, 5% of national seed demand is met through the officially released varieties. By 2016, 10% of demand will be met by locally-produced seed of improved varieties.

	In 2014	In 2015 and beyond
Current varieties	Plenty of materials of 11 improved staple crops (3 maize, 1 rice, 3 cassava, 3 sweet potato and 1 peanut) and 1 industrial cassava variety are available	More varieties of staple crops will be released including red rice, purple sweet potato and various legumes
Upcoming varieties	Various varieties of rice, sweet potato, mung bean, red bean and winged bean are being researched to identify those suitable for future release	Improved varieties of legumes and favoured local varieties will be released to help maintain biodiversity and improve nutrition outcomes
Seed demand	Each of the 13 districts manage their district seed system to achieve district seed balance	National seed inventory database will be established to manage and track seed balance
Seed production	Seed production is implemented by a combination of commercial and community producers. The commercial seed is quality assured.	Capable and well-trained community seed production groups will produce quality seed with minimal support from extension officers
Seed supply	Quality seed is available at the *suco* level and the emerging commercial sector is being trained in enterprise skills such as marketing and selling seed	Competent commercial seed producers linked to local traders will be selling quality seed of improved varieties through diverse local channels including in *lojas*, markets and kiosks in small packs (250-500g)
Seed storage	Producers are encouraged to follow good agricultural practices of seed selection, drying and storage	Farmers and producers will be using airtight storage vessels to prevent post-harvest and storage losses
Agri-business	Farmers are trained in agri-business activities to identify new opportunities such as making animal feed to boost chicken and pig production and food processing	Investment in chicken, pork or commercial food sector will help move farmers from subsistence food production to sustainable commercial agriculture

Progress in 2014

In 2014, the National Seed System produced many tons of maize, rice and peanut seed and thousands of sweet potato and cassava cuttings for use by farming families.

1

Seed system management

MAF determines research priorities for the coming year based on feedback from farmers. They also monitor seed demand and supply to set production targets for the coming year.

A national seed inventory planning and management system is being developed to capture all data relating to the National Seed System in each district. This will aid with national seed planning, allocation and inventory control.

2

Crop identification and development

Research continues into new legumes and staple food crops to identify productive varieties. This is done at:

6 research sites representing all the agro-ecological zones of Timor-Leste (Betano in Manufahi, Loes in Liquica, Darasula in Baucau, Quintal Portugal in Aileu, Urulefa in Maubisse, and Raimaten in Maliana).

Over 500 farms where farmers grow two to three varieties on their farms as demonstration trials to see how the crops perform with local farmer practices and across the range of soils, weather conditions, slopes and aspects.

Below: A farmer in Maliana shows some of his Utamua peanut harvest (Photo: Alexia Skok)

Over 40,000 crop-producing households are currently benefiting from using the improved varieties (that's around one-third of farmers in Timor-Leste)

3

Production and quality control

Maize, rice and peanut

Small amounts of high-cost breeder, foundation and certified seed are produced under highly-controlled conditions to ensure physical purity of the varieties is maintained. This is achieved by:

2 Pure Seed Officers producing foundation and breeder seed at MAF research centres.

115 contract growers producing certified seed under close MAF supervision.

6 seed warehouses (Aileu, Baucau, Betano, Loes, Maliana and Viqueque) including 3 well-equipped processing facilities (Baucau, Betano and Maliana) used for processing and storing certified seed.

11 District Seed Officers and Seed Quality Control Officers using two regional laboratories (Betano and Triloka) and a national laboratory (Comoro, Dili) to maintain quality assurance of breeder, foundation, certified and commercial seed.

Large quantities of low-cost commercial and community seed are produced locally in all districts for use by farming families. This is through:

31 registered commercial seed producers including 19 farmers' associations authorised to produce commercial seed in the 2013-14 cropping season (of 593 total members, 31% are women).

>1,000 community seed production groups (~3/*suco*) are producing community seed in 2013-14 (of 14,415 total members, 30% are women).

Sweet potato and cassava

>60 sweet potato production centres established in all districts to enable farmers to locally-access quality cuttings.

>30 cassava groups producing quality cuttings. Production centres for cassava will be established in 2014.

Crop identification and development

Research is the "engine room" of the national seed system. Through controlled on-station research trials and small on-farm trials, the suitability of numerous varieties of promising seed and planting material to various weather and soil conditions are assessed. The acceptability of varieties as food are also tested with farming families before being submitted to MAF's Variety Approval, Release and Registration Committee for official release.

The Ministry of Agriculture and Fisheries conduct extensive on-station and on-farm research to identify improved varieties of staple crops that are:

- High yielding
- Tolerant to disease and insects
- Nutritious and tasty
- Adapted to local soil and weather conditions
- Adapted to traditional farming practices (ie. low input farming)
- Valued by consumers (ie. can sell for a good price)
- Suited to traditional gender roles
- Storage considerations

1

Testing varieties on research stations

The Ministry grows varieties sourced from local farmers and international research centres at six research stations across Timor-Leste. Ten to 20 varieties are grown at each station in replicated 5 x 5m plots using traditional farming practices. Research staff observe the crops during growth and at harvest, and invite farmers to visit to also observe and taste the top varieties.

Location	District	Elevation
Betano	Manufahi	3m
Loes	Liquica	10m
Raimaten	Maliana	300m
Darasula	Baucau	400m
Quintal Portugal	Aileu	900m
Urulefa	Ainaro	1,200m

Background: Noi Mutin maize kernels (Photo: unknown)

How does it work?
Here's the timeline for the testing and release of Noi Mutin maize

Many varieties, few locations

Noi Mutin is a white maize variety from Central Mindanao University in the southern Philippines. In **2006** it was one of 17 maize varieties (3 local, 14 introduced) being grown and tested on four research stations across Timor-Leste. In **2009**, after three years of testing, Noi Mutin proved to be the best-performing variety with its high yield. It was also preferred by farmers for its taste and white colour. On-station testing of Noi Mutin continued from **2009-2011** to confirm its superiority.

Although released varieties typically come from overseas, they are tested and grown in Timor for at least five seasons before being released

2

Testing varieties with farmers

Varieties that perform well on-station over a few years are then given to farmers to grow on 5 x 5m plots on their land. Research staff regularly visit the farmers to establish the trial plots and to observe the crop during growth and at harvest. Currently, there are around 500 farmers across Timor-Leste growing 2-3 varieties on their farms for research purposes.

As with all cultures, taste preferences (sweetness, texture, dryness and flavour) play a critical role in the successful uptake of new crop varieties. Because of this, farming families (both men and women) participate in regular 'taste test' events on research stations and in a percentage of on-farm demonstration trials.

3

Evaluating varieties for release

Varieties that perform well on research stations/ centres, on farms and across various locations over five years are considered for official release. These varieties are assessed against a broad number of criteria, not only for superior yield and agronomic adaptability but also for their social, environment and gender impacts.

Once deemed suitable MAF's Variety Approval, Release and Registration Committee recommend the variety to the MAF Minister for official release.

Few varieties, many locations

Noi Mutin was given to different farmers each year from **2009-2011** to grow on their own fields alongside Sele maize and their own seed for comparison.

2009: 100 farmers
2010: 188 farmers
2011: 102 farmers

Official release

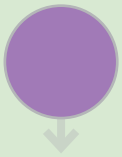
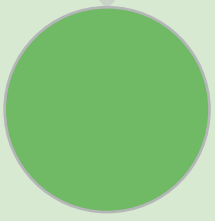
In **2012** Noi Mutin was officially released after performing well in on-station tests for six years and on almost 400 farms over three years.

Production and quality control

Maize, rice and peanut seed

To make the improved varieties accessible to farmers, large quantities of quality seed must be produced for distribution.

This is achieved by multiplying a limited quantity of high-cost, genetically-pure seed across various seed classes to produce large quantities of lower-cost, locally-produced commercial and community seed. Robust quality assurance processes ensure genetic purity remains high at every stage and genetic deterioration is low. The seed classes are as follows.

	Seed class	*Quantity*	*Produced by*	*Physical purity*	*Purpose*
Not for public use	**Breeder seed**		Ministry of Agriculture and Fisheries	99.9%	Seed production
	Foundation seed		Ministry of Agriculture and Fisheries / contract seed grower	99.9%	Seed production
For public use	**Certified seed**		Contract seed grower	98%	Seed production
	Commercial seed		Registered commercial seed producers	95%	Seed for food production
	Community seed		Community seed production groups	Not guaranteed	Seed for food production

All released varieties are public domain and can be used for free, forever. Timorese farmers will never need to pay a royalty or any other fee for using these varieties.

Quality control	*Cost to produce*	*Amount produced each year*	*Label colour*
Controlled by MAF Grown on MAF research centres under highly controlled conditions managed by the Breeder or Pure Seed Officer.	High	Limited	Yellow
Controlled by MAF Production is highly controlled and supervised by a seed officer.	High	Small	White
Controlled by MAF Seed is produced on contract grower's fields/plots under supervision of a seed officer. Seed is tested in laboratories for moisture content, physical purity and germination before being packaged as certified seed.	Medium-high	Medium	Purple
Self regulated CSPs test their seed for physical purity, germination and moisture content, and record the results on a "truthful label". Subject to spot checks by the MAF Seed Department.	Medium	Large	Pink
Self regulated CSPGs follow best-practice advice from MAF for producing and storing quality seed.	Low	Large	Unlabelled

Commercial seed

Commercial seed producers multiply certified seed to produce commercial seed. The producers are registered and have a permit to produce and sell seed in accordance with MAF's quality assurance guidelines.

The seed is subject to spot checks by MAF Seed Department and is sold as commercial seed under the producer's unique brand to other farmers, NGOs, commercial seed traders and the Timor-Leste Government. It is normally used for food production.

Producers interested in growing and selling commercial seed must complete two steps:

1. Register with MAF as a commercial seed producer – valid for five years
2. Obtain an annual Commercial Seed Production Permit to produce a specific variety and amount of seed – must apply every year

Their *Suco* Extension Officer or MAF District Seed Officer can provide advice and assistance on completing these steps.

Below: Commercial seed producers from Baucau, Lautem and Viqueque receive their registration certificates at an event in Bauacau in December 2013 (Photo: Jessy Betty)

"I really like the system established by the ministry so we can help stop the seed imported from overseas"

Arthur Xavier, Tane Fini Commercial Seed Producer, Viqueque

Who can become a commercial seed producer?

Farmers' associations, individual farmers and private companies involved in seed production can become commercial seed producers if they meet the criteria in the Ministry's registration guidelines.

Why is registration important?

Registration as a commercial seed producer is important for the following reasons:

- to provide a legal basis for quality seed production
- to assure existing and potential seed buyers that the seed produced is quality seed
- to differentiate the registered producer from other non-registered community seed production groups producing community seed, which cannot be sold as commercial seed.

What if a producer breaches the code of conduct?

A registration certificate is normally valid for 5 years. However, should the registered producer breach the code of conduct of commercial seed production including any quality control procedures set by the MAF Seed Department can at any time cancel their registration as a commercial seed producer.

If a producer is registered, why do they also need a permit?

The permit allows a commercial seed producer to produce a specific variety of seed in an agreed location and area. This annual permit is necessary to ensure:

- enough certified seed is produced to support commercial seed production
- production levels are managed, based on demand
- seed quality is maintained.

Above: Lino Rui de Andrade is chief of the commercial seed producer group *Buras Hamutuk* that grows Sele maize in Los Palos (Photo: Alexia Skok)

By producers selling improved variety seed at local seed markets, farming families will have access to a reliable supply of quality seed at the time they need it and of the variety they want

Ensuring the quality of commercial seed is key to maintaining people's trust in the seed system

How is the quality of commercial seed guaranteed?

There are a number of quality assurance steps that a commercial seed producer (CSP) must follow as part of the seed system.

Phase	Quality assurance
Before planting	**Producer must have an annual production permit** Once registered as a commercial seed producer, the producer must apply for the annual CSP permit. The MAF Seed Department reviews the application, conducts a field visit and, if approved, issues a permit along with an annual quality control form. **Producer purchases high-quality certified seed** The commercial seed producer buys certified seed from the MAF Seed Department in accordance with the quantity authorised on the production permit.
Mid-season	**MAF seed officer inspects producer's crop** The producer requests a field inspection from the MAF District Seed Officer. The inspection is signed-off on the Annual Quality Control (AQC) form. If the commercial seed producer fails in a certain criteria but shows potential to solve the problem, the AQC form will note the improvements necessary to pass future inspections.
Post-harvest	**Producer self-tests harvested seed** The commercial seed producer processes and tests their commercial seed before being packaged, branded and made available for sale.
Sale of seed	**Producer records seed sales** The producer must complete a log of seed sales detailing the buyer, price and quantity. Once all seed is sold, the sales summary must be completed on the quality control form. **MAF spot-checks commercial seed** The actual quality of any commercial seed can be spot-checked by District Seed Officers taking a sample for testing at any of MAF Seed Department's seed testing laboratories. Significant quality differences between actual results and those on the label can result in removal of authority to produce commercial seed next year or even de-registration. MAF may also request to see the producer's list of seed sales.

Community seed

Community seed production groups locally produce unlabelled, low-cost community seed from certified, commercial or community seed. The seed is properly stored in airtight containers then made available for farming families to use the following season for their food production.

From 2014-15, community seed will be available in all communities in all districts to meet the seed requirements of group members and other farming families.

Over 90% of the seed farmers sow comes from local channels, including from farmers' own stocks (72%), the local market (12%), or through social networks of neighbours, friends and relatives (7%)

Seed Security Assessment 2013

What is a community seed production group (CSPG)?

A CSPG is formed by farmers to produce seed for group members and their local community. Their objective is to ensure farmers have sufficient good quality seed to plant next season so they do not have to rely on seed from MAF or NGOs. CSPGs are formed at the village level and usually comprise around 10-15 members, with each member representing a household.

How does a community seed production group maintain the quality of their seed?

For maize groups, their seed should be replaced with fresh, new commercial seeds every three years. For rice and peanut groups, it should be replaced every five years. New seeds should be sourced from the *Suco* Extension Officer or MAF district community seed coordinators.

Below: Francisco Jose Martinez tends to the corn crop planted by his 10-member CSPG outside Maubisse, Ainaro district (Photo: Conor Ashleigh)

How does a community seed production group work?

Find out below

Time	Activity The group:
Planting	• Receives seeds on credit from *Suco* Extension Officer (SEO) • Receives orientation and mentoring support from SEO on community seed production • Grows seeds in one good seed plot as a collective activity • Follows technical tips for seed production, e.g. isolation, rogueing and seed selection.
Harvest	• Harvests the seed plots at the right stage and separates seed from food-grains
Post-harvest	• Stores the clean, well dried seeds in appropriate containers • Shares the agreed quantity of seeds with all members for food production on their private land • Shares/barters/sells surplus seeds with neighbours within their *suco* • Returns the same quantity of seeds to the SEO at planting time to support other groups in the same *suco* for food production
Ongoing	• Maintains a 'group book', with support from the SEO, for recording its members, group decisions, activities, agri-tools, results and visitor notes • Continues the seed production in same plot as a collective activity every year

Above: Women members of a peanut CSPG in Natabora (Photo: Jessy Betty)

Appendix

Registering as a commercial seed producer

The free registration process for producers interested to become a commercial seed producer consists of three steps:

1 Meet the registration criteria

Any producer interested in registering must:

- have a farmers' association or company statute (not applicable to individual growers).
- have had sufficient training on seed production and quality control.
- be committed to following standard seed production, labelling and marketing procedures.
- have at least one year's experience in growing seeds of MAF released varieties.
- possess basic seed processing equipment (tarpaulin and screen) and seed storage facilities (airtight steel drums or silos stored under cover).

"I am pleased with my registration certificate because it shows I am trusted to produce quality rice seeds of Nakroma"

Regina Amaral, registered commercial seed producer in Venilale, Baucau

Below: Regina Amaral, chief of *Waiteque* commercial seed producer group in Venilale, at her group's rice field (Photo: Alexia Skok)

2 Complete a registration form

Interested seed producers who meet the criteria obtain a registration form from their *Suco* Extension Officer or MAF district seed officers, who can also help with completing the form. Once complete, the District Seed Officer reviews the form and forwards it to the MAF Seed Department.

3 Have their plot inspected by a District Seed Officer

The MAF Seed Department authorises the District Seed Officer to conduct a visit to the commercial seed producer's field to check their proposed seed production plot, seed processing equipment and storage facilities. The field visit report is then sent to the MAF Seed Department for review and approval.

Following this, the MAF Seed Department reviews the field visit report and if approved, issues a Commercial Seed Producer Certificate (valid for five years).

Applying for an annual permit
for commercial seed production

The process to apply for the annual Commercial Seed Production Permit is free and must be completed every year by a registered commercial seed producer (CSP). To apply, registered producers must:

1 **Complete the application form**
Registered commercial seed producers complete the permit application form, which they get from their District Seed Officer. On this form they must specify the area, the crop, the variety, the field location and their experience in seed production.

2 **Submit the previous year's annual quality control form**
Along with the application form, the producer must submit the completed annual quality control form from the previous year (only applies from the second year of a CSP's registration).

3 **Have their field inspected by a District Seed Officer**
After receiving the completed form, the District Seed Officer conducts an inspection of the field/s for seed production, as nominated on the form, and completes a field report.

The Seed Department reviews all the documentation and if approved, issues the producer with an annual permit for commercial seed production and a new annual quality control form.

Below: A bag of certified maize seed with a purple label (Photo: Jessy Betty)

Why the coloured seed labels?

The colour-coded labels allow people to easily identify the different seed types. By buying labelled seed, farmers, groups and others can be assured of its quality.

"Seed is vitally important, therefore we developed the National Seed Policy and now the National Seed System to guarantee the seed in the country and to reduce imported seed"

Marcos da Cruz, MAF Vice Minister

Right: Marcos da Cruz speaks at a registration ceremony for 12 commercial seed producers from Baucau, Lautem and Viqueque (Photo: Jessy Betty)

"Taste tests are important because farmers like to plant, eat and sell crops that taste good and have high production"

Felisberto Amaral Soares, MAF Researcher

Right: Farmers at a cassava taste test in Aileu give feedback on the varieties with the best taste, texture and colour (Photo: Alexia Skok)

"Sele is good. The cobs and seeds are big and the results are impressive. We will continue to plant it"

Urbano do Carmo dos Reis, Chief of a CSPG in Natarbora

Right: Members of the community seed production group in *suco* Abat-oan, Natarbora, celebrate their Sele maize harvest (Photo: Jessy Betty)

Above: Labourers pick young rice seedlings on Jose Dos Santos's farm outside Maliana, Bobonaro district (Photo: Conor Ashleigh)

Produced by Seeds of Life, July 2014

Australian Aid