

# Forage seed supply in Ethiopia: how to address quality issues

Report on the stakeholder engagement events held at ILRI Campus, Addis Ababa



**RESEARCH  
PROGRAM ON  
Livestock**

ILRI WORKSHOP REPORT



# Forage seed supply in Ethiopia: how to address quality issues

## Report on the stakeholder engagement events held at ILRI Campus, Addis Ababa

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Feed and forage development program and ACDI/VOCA workshop on forage seed certification October 2019 Addis Ababa, Ethiopia (Photo credit: ILRI/Apollo Habtamu).

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# Acknowledgment

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# Executive summary

This study was commissioned by ACDI/VOCA and implemented by the International Livestock Research Institute (ILRI) between February and October 2019. The objective was to prepare a certification scheme for forage seeds in order to improve quality and strengthen marketing opportunities for both producers and sellers. The study took place in three stages: the first was a scoping study in March to gather background information, followed by two weeks of field work in May during which time a wide range of stakeholders were consulted and a report was prepared. These two meetings represent the third stage in which the report was discussed and the opinions of stakeholders sought on the best way to carry this initiative forward.

Many previous studies and activities have emphasised the need to increase the use of cultivated forages as the best way to improve livestock feeding and reduce pressure on the environment. With human and livestock populations still increasing, this is a matter of national economic importance, but it has proved remarkably difficult to solve. The solution lies not only in the hands of producers and sellers of forage seeds but also with policy makers and service providers who must support the seed chain and make quality seed readily available to farmers. These two engagement meetings with different stakeholder groups were intended to capture all aspects of this problem and produce a synthesis based on improving seed quality with benefits extending through the entire delivery system and ultimately to farmers.

The main finding of the study was that certification standards already exist for most crops, but they are not used because they are too difficult to implement. Therefore, it was recommended that the introduction of Quality Declared Seed (QDS) would be an easier first step because it would allow more flexibility than full certification and enable reputable producers to do much of the work themselves in a more timely and efficient way. The requirements of such a scheme were explained in detail in both meetings and received strong support from the participants. QDS can be regarded either as a final solution, or as a step on the road to certification because the technical procedures are very similar. The key difference is the allocation of responsibilities between various parties.

For QDS to work, there must be a strong commitment by a group of reputable producers to sign up to the scheme and agree a code of conduct that will maintain quality standards for their own benefit. This should be carried through the marketing chain with a system of packaging and labelling that makes this seed more widely available at the networks of sales outlets that are being developed by various projects and agencies. Traceability of the product will be an essential element and the move towards direct seed marketing will support this process. In fact, the system of administered allocation and distribution that has been used for major cereal crops simply does not work for a more specialised product like forage seed. This has probably been one of the constraints to wider adoption.

As a first step, a draft guideline for QDS should be developed setting out the key procedures, standards and obligations so that all parties can see what is involved. Besides the commitment of research stations and producers, regulatory and policy aspects must also be taken care of to ensure smooth implementation across all regions. Obtaining approval for simplified seed quality standards is a prerequisite for implementing the QDS approach.

The newly formed National Seed Advisory Group should be the key point of contact for this since they bring together a wide range of knowledge and expertise. Moreover, their recent document on transformation of the seed sector<sup>I</sup> provides a comprehensive analytical framework, in which the special needs of forage seeds could be placed.

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I Ministry of Agriculture (MoA). 2019. Transforming the Ethiopian seed sector: issues and strategies. Addis Ababa, Ethiopia: MoA

# Introduction

Forage seed quality and access is a longstanding issue in Ethiopia. There have been various efforts to address this, including a national symposium organized by Ethiopian Institute of Agricultural Research (EIAR) in 2012 and the GIZ-funded FeedSeed that was implemented by ILRI from 2013–2016. While both of these stimulated some progress, access to quality seeds remains a major impediment to the wider use of planted forages that is necessary to support a more productive livestock sector.

Recognising this, the ACDI/VOCA FEED III project funded by USDA commissioned ILRI to conduct a further study on forage seeds in Ethiopia, specifically focused on the issue of seed certification as a way to improve quality. A scoping study was carried out in March 2019 and this was followed by two weeks of fieldwork in Ethiopia in May. Based on the information collected, a draft report of the findings and recommendations was prepared and circulated to a wide range of stakeholders.

These two meetings were held to consult with different stakeholder groups. On 10 October 2019, the first meeting was held to present the report and seek opinions at the more strategic and policy levels. There were 20 participants representing a wide range of institutions and interests. The purpose was to provide background on forage and forage seed sector in Ethiopia, set out the current status of forage seed certification and propose next steps for forage seed quality improvement. The second meeting took place on 11 October 2019 and brought together a group of seed producers to assess their interest in the proposed certification scheme as a way to improve marketing opportunities. The list of participants in both meetings is given in this annex.



# Proceedings of day one, 10 October 2019

Participants were welcomed to the meeting by Alan Duncan (ILRI), Seyoum Bediye (EIAR) and Carl Birkelo (ACDI/VOCA). Then, participants introduced themselves and explained briefly their background and interests in the subject. The meeting continued with four plenary presentations.

## Presentations

### 1 Seed systems in Ethiopia: presented by Dawit Alemu, National Seed Advisory Group

The National Seed Advisory Group conducted an in-depth review of the seed sector which was published in July 2019 as a 40-page document entitled “Transforming the Ethiopian seed sector – issues and strategies”. It provides a comprehensive statement of the current situation, highlighting many issues that need to be addressed to make the sector more efficient. Dawit Alemu is the Chair of the group and his presentation summarised the findings of the review, mostly focussed on cereal crops but with relevance to forage seeds.

### Summary of discussion

Questions focussed on the fact that we know the issues but there is a communication problem between technical experts and policy makers. This is not helped by the fact that policy makers change frequently, and the policy framework is fragmented among ministries/directorates. The creation of a unified Seed Directorate should improve coordination and enable a more focussed approach to the problem of forage seed supply.

### 2 Livestock feed in Ethiopia with a focus on forage/forage seeds: presented by Getachew Animut, Agricultural Transformation Agency (ATA)

The presentation showed the contribution of livestock to the national GDP and feed as the main constraint limiting productivity. The Growth and Transformation Plan (GTP) has proposed a tripling of feed availability, but progress towards this target has been slow. The main livestock feed issues include inadequate supply, poor quality and seasonal scarcity. The country has a negative feed balance with supply satisfying only 17–46% of the maintenance requirements (in dry matter) in different parts of the country. The situation is even more serious when the protein balance is considered. It was suggested that such critical feed gaps could be filled through improved forage production and peri-urban/urban feed markets could be supplied through forage outgrower schemes. For such interventions to succeed, there must be a functioning seed system, allocation of sufficient land and greater awareness of production techniques for forage crops.

## Summary of discussion

Questions revolved around allocation of land to forages and whether this was partly driven by the government extension system like in Selale (West Shewa, Oromia). Participants agreed that Selale is a special case and that farmers generally make their own decisions about land use like in the case of allocation of land to Eucalyptus. The case of Africa RISING was highlighted, where farmers grow forages but face problems with keeping the crop for seed due to pressure to use biomass for feed production and difficulty in protecting forages long enough to set and harvest seeds. This is an understandable problem since farmers will make short term decisions if there is insufficient feed available for their stock at any particular time.

Using outgrowers for production is recognised universally as best practice in the seed trade but the current law on contracts in Ethiopia is very old and something more specific for seeds would be helpful to ensure that contract production works well for all parties. This would benefit the entire seed sector, not only forage crops.

A national information network on seed production and requirement/demand could enable better use of available materials, and this would certainly have relevance to forage seeds.

## 3 Background on forage and forage seed sector in Ethiopia: presented by Getnet Assefa, ILRI consultant

The presentation showed the current status and trends of feed availability in Ethiopia. It also highlighted the role of quality feed availability in transforming livestock production. The wider use of improved forages is the most feasible option and it provides additional benefits in terms of natural resource conservation and soil management. An overview on the achievements of forage research and development for the last five decades was presented. In total, 49 varieties/species of forage have been registered and production and utilization packages have also been developed. It was emphasized that despite all these efforts and intensive demonstrations, observed adoption and impact remained very low. This was mainly due to lack of inputs like seed, market orientation among smallholders and extension systems to promote cultivated forages, particularly among arable farmers who could use these as a cash crop in their rotations.

## Summary of discussion

Participants discussed limits to adoption. Low return on investment was suggested as an overriding cause. However, in some cases, forages are commercially attractive relative to other land uses. It is essential to stop thinking about farmers as a homogeneous group—commercial farmers and those with crossbred animals are more likely to adopt forages than subsistence smallholders. Introducing mechanized ploughing could free up feed for more productive animals and help in commercialization.

There was concern about the availability of basic seeds and who produces them. Most seeds originate from ILRI and the research stations of EIAR and the regions. There is limited capacity on forages in the Biodiversity Conservation Institute.

One participant wondered if there was merit in developing a wider range of varieties. Participants were of the view that it is probably best to work with what we have first. The number of registered varieties is not the first constraint to development of the sector but new varieties can be incorporated when released and become available as early generation seeds.

## 4 Forage seed certification in Ethiopia including recommendations from the consultation exercise: presented by Michael Turner, ILRI consultant

The key finding of the consultation was that all the legal framework and technical standards for certification already exist; but they are used for cereal seeds, not for forages. This is because almost all forage seed production takes place in the informal sector; producers do not request certification and regional authorities probably do not have the capacity to do the work. Moreover, the quality specifications published by the Ethiopian Standards Agency are unachievable in practice. The report proposes that, as an interim measure, QDS should be adopted as a more flexible approach and the requirements for this were explained.

### Summary of discussion

One participant felt the report did not explain in sufficient detail how the body responsible for QDS would be formed and functional. This point was accepted but it was felt that these details should emerge from the stakeholder meetings if sufficient commitment was evident rather than being prescribed in advance. Securing this support is the key first step and one of the main aims of the meeting with producers on day two.

Another participant suggested that there was need for more specificity in the document about who owns the quality certification process. Again, this was agreed but this will be a key element in the QDS scheme because there must be commitment from the members to make it work to their advantage.

There was discussion about whether QDS could act as a steppingstone to full certification. This depends on how the process unfolds—if QDS works and does the job, it can remain in place; it can also progress to certification if the necessary capabilities can be developed. The technical activities involved are similar but easier for the producers, particularly in terms of timely crop inspection during the growing seasons.

Given the complexity of existing standards, there was some reflection on how to simplify forage seed standards and what the most important elements would be. It was agreed that the germination standard is the most important, followed by purity and (possibly) moisture content. Simple germination test procedures that could be done by producers would be helpful. ILRI has a lot of experience in seed testing and should be able to offer advice. It is mostly the disease standards in the Ethiopian Standards Agency (ESA) specifications that are difficult to implement.

### Group work

After these presentations, participants divided into three groups to discuss the following questions:

- What are the key barriers to improve forage seed quality and access?
- Do we agree that QDS is an approach worth pursuing? Is forage seed supply likely to move towards commercialization?
- Can simpler QDS standards be produced/approved quickly?
- How can regions be linked? How will seed production be organized?
- What are your top three specific next steps to move the forage seed sector forward?

#### *What are the key barriers to improve forage seed quality and access?*

This question attracted the largest number of comments because all stakeholders are very aware that barriers exist at many different points along the seed chain, for example:

- There is poor supply of/limited access to basic seed for multiplication.

- Poor market linkages and lack of market information lead to surplus stocks and unfulfilled demand.
- There aren't sufficient and reputable outlets for where farmers can buy forage seeds easily.
- Packaging should be in suitable sizes for farmers to purchase for small plots.
- It's important to maintain identity through the supply chain to promote reputation (= traceability).
- There's lack of proper regulatory frameworks or certificates of competence.
- Some bulk buyers go for the lowest price offered without regard to quality.
- In some cases, land availability is a problem.

### *Is QDS worth pursuing? Is forage seed supply likely to move towards commercialization?*

All groups agreed that QDS is certainly worth pursuing as a pragmatic approach to improving seed quality. They also agreed that poor/unreliable quality is one of the main factors that affects demand. Any improvement will give more confidence to buyers and help to develop the market. Among other points raised in group work were:

- Quality assured seed commands a higher price.
- For QDS to work, less stringent standards need to be developed and approved.
- Better quality assurance systems, whether QDS or certification, may create export opportunities.
- QDS boosts confidence among reputable seed producers.
- There's need to establish a seed producers association to administer any QDS scheme. This could be linked to the existing National Seed Association.

### *Can simpler QDS standards be produced and approved quickly?*

Participants were generally optimistic that simpler QDS standards could be produced relatively quickly. To achieve this, the following would need to happen:

- a technical working group should be established to agree on the standards and procedures;
- a national QDS guideline and standards are needed as a starting point;
- standards need to be recognised within the existing regulatory system to make approval easier, with option to move to full certification later; and
- there should be agreement on the list of species and varieties that will be prioritised for each region.

### *How can regions be linked? How will seed production be organized?*

On the question of how the regions fit into a QDS scheme, groups made the following points.

- There is a need to establish a national seed producers association or a similar umbrella body that may need support in the initial stages.
- Regional chapters would be required to embrace regional issues.
- Some strengthening of the information sharing system and engagement with the existing national seed platform would be needed to facilitate marketing.
- It is essential to ensure uniform standards across all regions so that there are no barriers to domestic trade.

## Next steps

Groups deliberated on next steps and suggested the following:

- develop QDS standards for forage varieties that are appropriate for Ethiopian conditions
- implement policies and guidelines that support the QDS approach
- develop strategy for forage seed production and marketing with official support
- stimulate awareness raising and capacity building among all partners, especially in the extension services
- establish a national forage seed alliance
- test the pilot model



# Proceedings of day two, 11 October 2019

## Introduction

As seen in the proceedings from day one, strategic/policy level stakeholders were broadly supportive of the proposal to adopt a QDS approach to improve seed quality. Stakeholders emphasized that, for QDS to work, there must be commitment from a group of producers who see benefits from participation. It cannot be imposed from above or driven by outsiders. The purpose of the day two meeting was to seek the opinions of producers and address their concerns so that this initiative can be implemented in the most appropriate way. There were 10 participants representing a range of companies and institutions with interest in forage seed production (see list of workshop participants).

The aims of the day were to describe the various aspects of the QDS process, recap on progress made during the FeedSeed project and discuss next steps for embedding implementation of the QDS idea for forage seeds within the ongoing FEED III project or elsewhere.

Participants were welcomed by Alan Duncan (ILRI) and Carl Birkelo (ACDI/VOCA), both emphasising the importance of this meeting to the proposals that have been prepared by this study. Then, the participants introduced themselves and explained their interests in forage seed production.

The meeting continued with two plenary presentations.

## Presentations

### I Forage seed certification in Ethiopia and recommendations from consultation exercise: presented by Michael Turner, ILRI consultant

The key finding of the consultation was that all the legal framework and technical standards for certification already exist; but they are used for cereal seeds, not for forages.

This is because almost all forage seed production takes place in the informal sector; producers do not request certification and regional authorities probably do not have the capacity to do the work. Moreover, the quality specifications published by the Ethiopian Standards Agency are unachievable in practice. The report proposes that, as an interim measure, QDS should be adopted as a more flexible approach and the requirements for this were explained.

## Summary of discussion

Participants were concerned to know how the QDS scheme would be organised and coordinated and how quality standards would be maintained. It was emphasised that the scheme should not be open to all producers. Anyone who wants to be included would have to agree to a code of conduct to ensure members are governed by certain rules; otherwise the scheme would fail if confidence was lost. Maintaining the reputation of the product would be essential and having a more direct marketing system would help this, as also would a distinctive label and logo for Quality Seed.

Extension services should provide more information on growing forage crops and emphasise the importance of seed quality. Ideally, the agencies that put out tenders for forage seeds should only buy from companies/producers who use QDS. This would help cut out the unofficial traders who are known within the seed community.

They will still need someone to carry out the germination tests on seed lots, or could ILRI help in designing a very simple test procedure that producers could do themselves?

## 2 Experiences of the FeedSeed project: presented by Teklu Kidane, resource person (previously coordinator of GIZ FeedSeed project)

The GIZ-funded FeedSeed project supported was a serious attempt to drive forage seed production towards a more commercial system. It gathered about 30 producers and provided intensive training both in technical procedures and business management. It also identified many of the same weaknesses that have been revealed by our study, particularly with regard to market failure and lack of essential technical services to support producers.

## Summary of discussion

It was clear that participants recognised and understood the problems that were mentioned in the presentation and raised many times by different stakeholders during the two engagement events. There was frustration that producers often cannot sell their seed even though there is clearly need for more forage crops to be grown.

It was recommended to establish a forage seed platform to create synergy across all actors in the seed chain from production to marketing, and this should be supported by relevant policy.

Increasing the role of the private sector in seed production and marketing will lead to a stronger linkage in the seed chain. This could involve companies, cooperatives and farmers.

## Group work

Participants divided into two groups to discuss the following points:

- 1 What are the main blockages to expanding your business?
- 2 Would some kind of quality certificate/brand help? How would it help?
- 3 What would be 2 or 3 next steps to moving towards seed certification?

### *What are the main blockages to expanding your business?*

The main issues relate to systemic barriers are the corrupt and unregulated market system, lack of access to land, financial resources needed to invest in land, weakness in the extension system on forages and lack of access to basic equipment required to run a forage seed business. Participants also highlighted the issue of unscrupulous traders who sell inferior seed at low prices. This was exacerbated by government agencies focusing solely on seed price without regard for quality, thus pushing reputable seed suppliers out of market.

### *Would quality certificate/brand help? How would it help?*

Participants agreed that a quality certificate/brand would be an attractive prospect. They indicated that such a quality mark would create confidence in buyers and would help with marketing, including opening possibilities for export. They further suggested that a quality mark would help build image and increase the profile of reputable companies. It would allow differentiation on quality grounds and build traceability into the system, reducing corruption and increasing transparency.

Besides the technical support for producers, administrative support by the ministry in providing certificates of competence and related documents need to be transparent, practical and done with full accountability.

### *What would be 2 or 3 next steps in moving towards a seed quality assurance system?*

The following steps were recommended by the groups as possible ways forward.

- A QDS guideline should be developed as a joint exercise by key players including research institutes, ATA, ESA, MoA, ISSD, ILRI and ACDI/VOCA
- A system of registration for forage seed producers needs to be established.
- Support should be given to producers with business plans, perhaps revisiting the work of FeedSeed.
- Awareness creation activities need to be carried out to promote knowledge on the importance of seed quality among intermediaries and users.
- Market opportunities and linkages should be strengthened through supports like promotion, producer platforms, strong regulatory systems and capacity building.
- Mechanisms for internal checking of seed quality need to be developed. This would require expertise, equipment, proper stores and packaging (labelling and branding).
- Seed producers unanimously agreed that seed production under an appropriate quality control system like QDS is essential for both the seed producers and the livestock farmers.

## Synthesis of key conclusions from both engagement events

- 1 There was general agreement among participants that some kind of quality assurance scheme would help to enhance the supply of quality forage seeds. The consensus was that existing reputable suppliers are being hampered by unscrupulous informal producers who offer poor quality seeds at low prices. Bulk buyers are often complicit in maintaining low seed quality by their willingness to purchase seed of doubtful quality at low prices in order to fulfil quotas.
- 2 A further barrier to a healthy forage seed sector is the practice of NGOs and others to bulk purchase seed and offer this free to smallholder farmers, which creates an artificial market that limits the scope to establish a commercially viable seed system and expand in response to real demand. This is a problem that has persisted for many years.
- 3 The proposal to start with a QDS scheme was accepted, although progression to full certification can remain as the final goal. The rationale for using QDS is that it affords more flexibility in the standards (if agreed by regulatory bodies) and improves timeliness and lower cost of inspection procedures.
- 4 The key principles of the QDS Scheme must be accepted by policy makers and regulatory authorities so that no difficulties are encountered during implementation.
- 5 QDS must be owned by a group of producers (and other parties) who are committed to maintaining the standards and protecting the reputation of the scheme. This will require a robust code of conduct in addition to the technical guidelines.
- 6 While QDS will address quality issues, it is certainly not the only constraint in seed production. Many participants emphasised the problem of matching demand and supply. This can only be achieved if there is closer linkage through the whole marketing chain. This is consistent with the direct seed marketing initiative that is currently being rolled out.
- 7 Forage seed should be more widely available to farmers at a wide range of outlets, such as farm service centres, one stop shops, feed sales points, etc. so that they can make a spot purchase. This exploits the long-established principle that availability creates demand.
- 8 Putting the above points into practice will require the use of packages to facilitate retail selling in small units and with reasonable shelf life.

## Proposed next steps

The following were agreed as important next steps to move forage seed production forward and with more emphasis on quality standards.

- 1 Prepare a draft Guideline for a QDS scheme containing key principles and procedures that will define the scheme in more detail so that all parties know what is being proposed and what they have to do.
- 2 Present this draft to the National Seed Advisory Group for comments and approval in principle or with 'no objection' so that discussions can continue. We hope that the National Seed Advisory Group is sufficiently representative of all organisations that are working on seeds that their approval can be considered as an official green light to proceed.
- 3 Secure commitment from a group of producers to sign up to the draft QDS scheme and discuss the organisational structure, including legal status and governance. This will require some sensitive consultation to decide who is considered reliable and eligible; it cannot be too inclusive and there must be criteria for membership embodied in the code of conduct.
- 4 At this stage, it will be necessary to find external support to operationalize the scheme, including identifying all key participants, securing their support and making the organizational arrangements as listed in Annex 5 of the main report. This will also require basic facilities/arrangement for quality assurance and packaging.



## List of workshop participants

(Day 1: Stakeholders at strategic/policy level; Day 2: Forage seed producers)

	Name	Institute or organisation	Day
1	T/Yohanesse Berhanu	EIAR, Debre Zeit Research Center	1
2	Maru Degefa	EABC, Ethiopian Seed Enterprise	1
3	Fisseha Teshome	Ministry of Agriculture	1
4	Likawent Yeheyis	ARARI, Livestock Research Director	1
5	Tumicha Belguda	Seed producer (Eden Field)	1&2
6	Seyoum Bediye	EIAR	1
7	Amsalu Ayana	ISSD, Ethiopian Program Manager	1
8	Teweldebrhan Girmay	Ministry of Agriculture	1
9	Dawit Alemu	BENEFIT	1
10	Yitbarek Simanie	ATA, Inputs coordinator	1
11	Melaku Admassu	President, Ethiopia Seed Association	1
12	Alieu Sartie	ILRI, Genebank manager	1
13	Million Getnet	ILRI, Africa RISING project	1&2
14	Abera Seyoum	Ethiopian Biodiversity Institute (EBI)	1
15	Regassa Bekele	ACDI/VOCA, Forage specialist	1&2
16	Emeshaw Workneh	Amhara Seed Enterprise, manager	2
17	Abnet Abahumna	Anatoli, Forage seed producer	2
18	Mrs Zewditu Alemu	Seed producer, Merawi	2
19	Asebe Abdena	ILRI, Feedseed project	1&2
20	Teklu Kidanie	FeedSeed project (previously of ILRI)	2
21	Anteneh Berhanu	Seed producer from Tigray	2
22	Afewerk Abera	Nebro Forage Seed Multiplication and Marketing Cooperative	2
23	Hiwot Hibiste	Ethiopian Standards Agency	2
24	Getnet Assefa	ILRI consultant	1&2
25	Carl Birkelo	ACDI/VOCA, Country representative, Feed III Chief of Party	1&2
26	Michael Turner	ILRI consultant	1&2
27	Alan Duncan	ILRI	1&2

ARARI = Amhara Region Agricultural Research Institute

ATA = Agricultural Transformation Agency

ISSD = Integrated seed system development

BENEFIT = Bilateral Ethiopian-Netherlands Effort for Food, Income and Trade

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