



# Requirements and Procedures for Release and Registration of New Crop Varieties in Malawi and Zimbabwe

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## Seeds2B Project: Building Seed Bridges to improve smallholder access to quality seed of new improved crop varieties

Limited smallholder farmer access to quality seed of new improved varieties of cash and subsistence crops presents a major bottleneck to food security in Sub-Saharan Africa (SSA). Adoption rates of modern crop varieties for a number of crops that are strategic to smallholder livelihoods remain low in the region. This situation persists despite increased global public and private investment in the development of innovative improved crop cultivars with the potential to address challenges faced by smallholders in SSA.

The Seeds2B Project fosters the development of 'seed bridges' that facilitate the transfer of better-yielding, adapted and market-appropriate crop varieties developed by public and private breeders based in Africa and globally to smallholders in SSA. By adding new commercially viable products to the portfolios of local seed enterprises, the Seeds2B Project helps smallholders serve markets with the best of locally grown produce. The Syngenta Foundation for Sustainable Agriculture (SFSA) and the African Agricultural Technology Foundation (AATF) co-implement the Seeds2B Project in SSA.

### About AATF

The African Agricultural Technology Foundation (AATF) is a not-for-profit organisation that fosters public-private partnerships for the access and delivery of appropriate technologies for improved agricultural productivity in SSA.



### About SFSA

The Syngenta Foundation for Sustainable Agriculture (SFSA) creates value for resource-poor smallholder farmers in developing countries through innovation in sustainable agriculture and the activation of value chains.



## Table of Contents

Acronyms .....	2
Introduction.....	3
Acknowledgements .....	4
Release and Registration of New Crop Varieties in Zimbabwe .....	5
Zimbabwe's Varietal Release Process .....	9
Release and Registration of New Crop Varieties in Malawi.....	10
Proposed revisions to Malawi's National Variety Release System.....	16
Experience of Seeds2B in compliance with regulatory requirements and procedures in Malawi and Zimbabwe .....	18
References .....	19
Appendices .....	20

## Acronyms

<b>ATCC</b>	Agricultural Technology Clearing Committee
<b>CBI</b>	Crop Breeding Institute
<b>DARS</b>	Department of Agricultural Research Services
<b>DR&amp;SS</b>	Department of Research and Specialists Services
<b>DUS</b>	Distinctness, Uniformity and Stability
<b>NVRC</b>	National Varietal Release Committee
<b>SSA</b>	Sub-Saharan Africa
<b>SSI</b>	Seed Services Institute
<b>SSU</b>	Seed Services Unit
<b>UPOV</b>	International Union for the Protection of New Varieties of Plants
<b>VCU</b>	Value for Cultivation and Use
<b>VRP</b>	Variety Release Panel
<b>LSD</b>	Least Significant Difference

## Introduction

The introduction of innovative crop varieties is key to keeping Sub-Saharan Africa's (SSA's) agriculture-based economies abreast with changing market requirements and farming environments. New locally appropriate crop varieties help smallholders in SSA serve new and existing markets with the best of locally grown produce. Improved seed varieties address stresses and can lead to enhanced yields even when farmers are unable to adopt more costly inputs, such as fertiliser. Improving smallholder access to quality seed and improved crop varieties is thus critical for increased agricultural productivity in SSA.

Key to introduction of new crop varieties in different countries in SSA is the demonstration of 'value for cultivation and use' (VCU) and 'distinctness, uniformity and stability' (DUS). VCU trials encompass rigorous assessments aimed at articulating diversity in agronomic, horticultural, and industrial uses in comparison with existing varieties. Characteristics associated with cultivation include adaptability (maturity and nutrient use efficiency), yield performance, response to pests and diseases, and agronomic characteristics. Properties associated with use typically vary from one crop to another, such as potato tuber cooking quality and soybean oil content. DUS trials establish whether these are expressed uniformly within a variety and consistently from one generation to the next. DUS trials are typically carried out under ideal growing conditions and in accordance with the International Union for the Protection of New Varieties of Plants (UPOV) convention.

Lengthy variety release and registration periods experienced in most SSA countries delay farmer access to improved varieties thus negatively impacting agricultural productivity. The cost and time required for registration present a barrier to market entry if the process is not strategically managed.

The purpose of this document is to guide the Seeds2B partnership in the development and implementation of strategies to prevent undue delays to market access during the release and registration of new high-performing crop varieties in Malawi and Zimbabwe. It specifically provides information towards ensuring regulatory compliance of legal, scientific and professional applications. It will inform initiatives by AATF's regulatory affairs unit in support of the Seeds2B Project.

## Acknowledgements

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## Release and Registration of New Crop Varieties in Zimbabwe

### Key institutions involved in release and registration

Key institutions involved in release and registration of new crop varieties in Zimbabwe are the Department of Research and Specialist Services' (DR&SS) Crop Breeding Institute (CBI) and the Seed Services Institute (SSI). DR&SS is involved in variety development while SSI is involved in seed certification and quality control as required under Zimbabwe's seed legislation (Seed Act, 1971; Seed Regulations, 1971; Seed Certification Scheme Notice 2000).

### Requirements for recognition and release of a variety in Zimbabwe

Applications for recognition of a variety for certification are handled as per section 10 of Zimbabwe's Seeds (Certification Scheme) Notice, 2000 (Statutory Instrument 213 of 2000), of the country's Seeds Act (Chapter 19:13) (DR&SS, undated). This forms the core of Zimbabwe's variety release system, which aims to ensure that only distinct, uniform and stable varieties enter the country's agricultural sector. Varieties to be marketed should also have attained a threshold level for minimum value for cultivation and use (Mujaju 2010). Release applies to all crops with new varieties registered in a government list named the Second Schedule (Mujaju and Mutetwa 2015). Crops currently listed in the second schedule include maize, tobacco, barley, bean, cowpea, wheat, groundnut, oats, sorghum, rice, soybean, sunflower, cotton, potato, millet and pasture legumes and grasses.

### Value for cultivation and use

Data from VCU trials is collected on candidate varieties by independent evaluators for at least 2 concurrent seasons on a minimum of 5 sites in appropriate agro-ecological zones in Zimbabwe (Mujaju 2010). Data collected from other countries can only be used as supplementary or complementary information. The data collected in Zimbabwe should be collected in replicated trials established through recognised experimental designs and provided in the standard metric system. At least one commercial variety selected from widely grown similar varieties that are already registered in Zimbabwe should be included in the trials as a control (Mujaju 2010). On-farm trial data is acceptable as it indicates farmer participation and evaluation of the variety. Data for each trial site should state the Least Significant Difference (LSD) and Standard Error (SE) for all quantitative traits as shown in Table 1 (DR&SS undated). Site characteristics and information on response to important constraints to productivity should also be provided in the format provided in Table 2 (DR&SS undated). According to DR&SS (undated), key points taken into consideration include:

1. Physiological characteristics: plant height, grain/fruit colour, flower colour etc.
2. Agronomic characteristics: yield, maturity, standability and plant vigor
3. Performance against pests and diseases in the field and storage
4. Post-harvest characteristics: yield and quality
5. Additional information relevant to the candidate variety (for example produce quality, protein content, oil content etc.)

**Table 1:** Illustrative presentation of VCU data (DR&SS undated)

Variety	Site 1	Site 2	Site 3	Site 4	Site 5	Mean
Candidate A						
Candidate B etc.						
Control 1						
Control 2 etc.						
Mean						
SE						
LSD						

**Table 2:** Illustrative presentation of site characteristics data (DR&SS undated)

Parameter	Site 1	Site 2	Site 3	Site 4	Site 5					
Natural region/ rainfall/soil status/cropping history										
Total rainfall										
<b>Pest incidence</b>										
	Identity	Severity								
<b>Insects</b>										
<b>Diseases</b>										

On completion of the VCU trials, performance data, details of the breeder and supporting information are attached to Form No. S.C.S 2 – Application for recognition of kind or variety of seed (Appendix 1). The above documentation is submitted to the certifying authority (SSI) alongside at least 2kg of seed of the candidate variety (Mujaju and Mutetwa 2015). The certifying authority shall retain the completed application form, while circulating the supplementary performance data to the members of a Variety Release Panel (VRP) for their perusal ahead of the Panel's meeting. No member outside the VRP should have access to applications (Mujaju and Mutetwa 2015).

### **Distinctness, Uniformity and Stability**

On payment of the required application fees (reviewed annually) to facilitate the technical examination of the variety for DUS, the variety will be planted by the certifying authority, the applicant or a competent approved institution appointed by SSI (Mujaju and Mutetwa 2015). The DUS examination will assess authenticity to the type of variety using UPOV methodologies. The examination typically lasts one season. However, if problems relating to DUS are encountered and/or the variety shows a high level of off types (greater than the tolerance level for a certified crop of the same species), the applicant will be asked to submit another sample for re-examination in a second season of testing (Mujaju and Mutetwa 2015). When the certifying authority is satisfied with the DUS results, the variety shall be referred to the Variety Release Panel (VRP) for verification.

### **Assessment of release applications by the Variety Release Panel**

The VRP is mandated to verify the DUS status of a variety proposed for release, interpret Form No. S.C.S. 2 (Application for recognition of kind or variety of seed) with

regard to the Seed Certification Scheme Notice, 2000 and recommend or reject a variety for recognition by the Seeds Certification Scheme. The VRP is appointed by Zimbabwe's Minister of Agriculture, Mechanisation and Irrigation Development and is constituted as below (DR&SS undated):

- I. The Chair: comes from the DRSS directorate or their representative
- II. Secretariat: the certifying authority provides secretarial services
- III. Panel Members: appointees are drawn from the organisations listed below, based on expertise and interests, to sit in the VRP:
  - a. Seed services – Seed legislation, technology and DUS
  - b. Agronomy Research Institute – agronomy and variety testing
  - c. National Plant Protection Organisation - crop protection
  - d. Agricultural Research Trust – research and variety testing
  - e. Zimbabwe Farmers Union – crop production and smallholder interests
  - f. Zimbabwe National Farmers' Union – crop production and large scale indigenous farmers interests
  - g. Commercial Farmers Union – crop production and large scale indigenous farmers interests
  - h. University of Zimbabwe – crop science and plant physiology
  - i. Department of Agricultural Technology and Extension Services – extension, agronomy and farmers interests
  - j. Grain Marketing Board – produce and marketing standards
  - k. Ministry of Agriculture, Head Office – Ministry policy issues
  - l. Food industry representatives – users of commodity raw materials
  - m. Biometrics Bureau – statistical data interpretation
  - n. Chemistry and Soils Research – crop specific requirements

The VRP focuses on the proposed variety's merits and demerits as obtained from trials based on a proposal submitted in writing and/or orally by the applicant. The VRP considers data collected over 3 years and from at least 10 sites that represent Zimbabwe's agro-ecological zones (DR&SS undated). The breeder or the applicant may be asked to present data on the variety to the VRP on a date set by the certifying authority in consultation with the VRP and applicant. The applicant shall be required to submit a small seed/fruit/cob/head/lint sample of the variety for viewing by the VRP on the date of presentation.

The VRP's decision-making process requires a quorum of 50% inclusive of at least 1 farmers' union. The decision shall be based on two thirds of the vote cast. Each organisation/institute has one vote. The Chair presides over the proceedings but has no casting vote. The applicant concerned stays outside during voting but shall be called in after voting to be informed of the decision of the VRP (DR&SS undated).

### **Variety release, registration and de-registration**

A variety is accepted for release by the VRP if it is distinct, sufficiently uniform, stable and the VCU requirement is satisfied in at least one relevant trait of the candidate variety be it value, cultivation or use of the variety (Mujaju and Mutetwa 2015). A

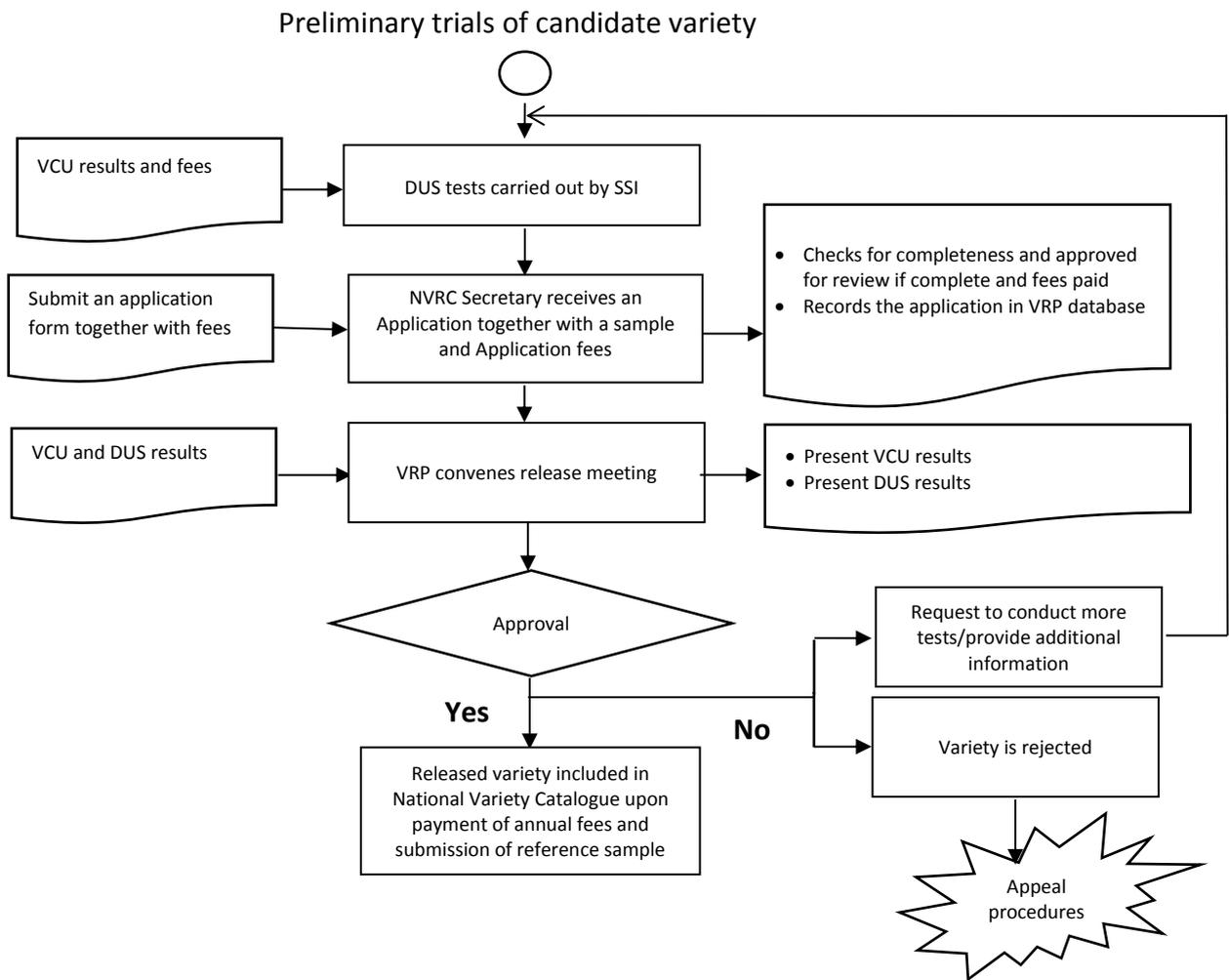
variety is rejected if it lacks distinctness, uniformity and stability. In addition, the VRP may reject a variety if the data presented does not meet the criteria for release. If a variety is rejected, the VRP provides the reasons, which are communicated in writing to the applicant by the certifying authority (DR&SS undated).

Once a variety has been approved for release, the Second Schedule (section 3) of the Seeds (Certification Scheme) Notice, 2000 is amended to include the recommended crop variety. The amendment is published in the Government Gazette. The schedule is then made available to all stakeholders so as to guide selection of varieties for planting. A sample of the newly registered variety is then deposited for reference purposes. An annual variety maintenance fee is levied for released varieties. The variety will remain on the Second Schedule for as long as it is properly maintained (i.e. it remains stable) and requisite annual renewal fee is paid to the certifying authority who will facilitate inspections in the field during seed production (DR&SS undated).

A variety may be deregistered if an inquiry implemented through conducting post control trials finds that the variety no longer meets DUS criteria, maintenance fee is not paid by the variety owner or the owner applies for deregistration of the variety (Mujaju and Mutetwa 2015). On approval for release, seed multiplication may begin under Zimbabwe's seed certification scheme based on details on performance, variety origin, breeding history and stock maintenance, which are on the application form.

An applicant may appeal a decision of the Panel to the Minister under the provisions of SI 213 of 2000. Alternatively, a case may be filed in Zimbabwe's courts of law (Mujaju and Mutetwa 2015).

## Zimbabwe's Varietal Release Process



**Figure 1:** Zimbabwe's variety release and registration system

## Release and Registration of New Crop Varieties in Malawi

### Key institutions involved in release and registration

The DARS' Seed Services Unit (SSU) oversees adherence to regulations contained in the country's Seed Act. Seed provision in Malawi is guided by the National Seed Policy of Malawi of 1993, complemented by the Plant Protection and the Pesticide Act. The policy is supported by the Seed Act (1996). The specific objective of the Act is to establish, through appropriate policies and programs, an environment conducive for the development of a sustainable seed industry. The seed policy focuses on variety research and development; pre-basic, basic and certified seed production; quality control; ensuring seed availability through buffer stock schemes; and strengthening stakeholder collaboration.

### Requirements for recognition and release of a variety in Malawi

Malawi's current variety release system has no legislative mandate as there are no existing legislations in Malawi covering seed release. However, the use of the conventional research methodology involving on-station and on-farm testing, including participatory research methods, sufficient repeatability, replication and clear ownership and authentication of the technology is key for the release of agricultural technologies in Malawi (Benesi, Changaya and Mzengeza 2015). Trial results should represent a significant improvement over an existing technology or represent a new technology.

All crops are eligible for release. So far the crops whose varieties have been listed include: maize, rice, sorghum, wheat, groundnut, bambara nut, beans, soybean, pigeon pea, cowpea, sunflower, cotton, cabbage, mango, guava, peaches, apples, pawpaw, citrus fruit, tomato, macadamia, coffee, cassava, sweet potato, yam, paprika, tea and tobacco (Mloza-Banda, Kaudzu and Benesi 2010).

### Value for cultivation and use

For a variety to be released and registered evaluation for VCU needs to be conducted for at least two seasons on-station and one season on-farm with 10-12 sites in target agro-ecologies. Alternatively, three seasons on-station and two years on-farm with less than 10 sites in target agro-ecologies is required. In case there is supporting information on previous performance of the candidate variety, a minimum VCU testing over two seasons in a few sites or one season in 20 or more sites is required (Mloza-Banda, Kaudzu and Benesi 2010). Results should represent a significant improvement over an existing technology or represent a new technology (Benesi, Changaya and Mzengeza 2015). Trials conducted within and/or outside Malawi should be effectively used to strengthen the validity of VCU findings.

### Distinctness, Uniformity and Stability

In place of DUS, the applicant must provide information on morphological traits which seed inspectors will use during inspection.

## **Assessment of release applications by the Agricultural Technology Clearing Committee**

A technology release proposal as well as an application for release (Appendix 2) need to be completed and submitted to the Agricultural Technology Clearing Committee (ATCC). The ATCC is mandated by Malawi's Ministry of Agriculture and Food Security to approve and release all agricultural technologies for use by farmers in Malawi. In this respect, the ATCC has essentially taken over all the functions and responsibilities that were vested in the National Variety Release Committee. The mandate of the ATCC was further extended to include all technologies developed in the agricultural sector, including livestock, technical services, soil fertility, farm machinery, plant protection, among many others.

In order to achieve its objective(s) and mandate, the ATCC is charged with the following functions:

- I. Examine and evaluate agricultural technologies developed by National Agricultural Research Systems, including commercial private sector organizations, as well as those from International Agricultural Research Systems, prior to their release to farming communities;
- II. Develop strategies and a framework of action for approving agricultural technologies;
- III. Monitor and evaluate the performance, appropriateness and adoption rates of the released technologies, including those that are on limited or partial release, through various feedback mechanisms from field extension staff and other end-users;
- IV. Monitor the introduction and importation of new agricultural technologies from international sources with a view to ensure that they undergo thorough testing under local Malawi field conditions prior to their release to end-users;
- V. Ensure that the released technologies are accompanied by appropriate and relevant documentation, or publications, such as extension circulars;
- VI. Ensure that all information on released agricultural technologies are included in the Guide to Agricultural Production and Natural Resources Management in Malawi;
- VII. Recommended for withdrawal from use of all agricultural technologies that are counter-productive, not performing well, environment unfriendly, or are not consistent with Malawi's sustainable economic development strategies;
- VIII. Develop, maintain and regularly update a catalogue of all approved agricultural technologies, including a register of agricultural researchers, and all research institutions and/or organizations responsible for developing agricultural technologies;
- IX. Compile and maintain a record of all agricultural technologies in an appropriate publication that is regularly up-dated and distributed to farming communities and other end-users;
- X. Establish and maintain linkages with other committees in relevant institutions and/or organizations to eliminate possible duplication of efforts ensure coherence and quality of the released technologies;

- XI. Solicit funds, over and above Government funding from donor agencies and all other well-wishers to efficiently and effectively fulfill the above functions;
- XII. Inform the Minister of Agricultural and Food Security on the total number of fully and partially released agricultural technologies that are in use by farming communities from time to time;
- XIII. Coordinate all activities on the proper modalities for the release and approval of agricultural technologies in Malawi, and
- XIV. Execute any other duties and functions as may be assigned by the Minister of Agriculture and Food Security through the Secretary for Agriculture and Food Security and the Director of Agricultural Research Services.

According to Benesi, Changaya and Mzengeza (2015), membership of the ATCC is as below:

- Controller of Agricultural Extension and Technical Services – Chairperson
- Director of Agricultural Research Services
- Director of Agricultural Extension Services
- Director of Crop Production
- Director of Animal Health and Livestock Development
- A representative from the National Research Council of Malawi
- A representative of the Principal, Bunda College
- Director of Tea Research Foundation of Central Africa
- Director of Agricultural Research and Extension Trust
- An extension specialist representing farmer's interests
- A biometrician or statistician
- Representative of the private sector
- An agricultural economist
- Secretary of the ATCC (Ex-Official)
- Registrar of the Pesticides Control Board

The ATCC may co-opt in representatives from other institutions or organizations depending on the nature of the technologies to be discussed.

The completed technology release proposal and application for release is circulated to members of the ATCC for scrutiny at least two weeks before a sitting. Agricultural technology release proposals submitted to the ATCC Secretariat for review should bear the following important attributes or aspects: (i) use of the conventional research methodology, (ii) sufficient repeatability and replication, (iii) presentation of significant research results or findings (iv) a summary of conclusions and recommendations (v) effective use of data for work conducted within and/or outside Malawi to strengthen the validity of the findings, and (vi) clear authentication of the technology, including ownership of the technology and authorship of scientific publications. Release proposals submitted to the ATCC should follow the following generic format: (i) title, (ii) name(s) of author(s), (iii) abstract, (iv) introduction, (v) materials and methods, (vi) results, (vii) discussion, (viii) recommendations, (ix) acknowledgements (x) references, and (xi) annexes.

A sitting is called for the applicant to make a presentation and defend the varieties being released. DARS scientists assigned responsibility to present to ATCC must provide clear authentication of the technology. In such a case, a peer review of data by DARS at commodity team level, community team level and institutional level before submission to ATCC secretariat for distribution to members is encouraged. If private sector is involved, the role of Malawian scientist/extension worker should be recognised (Benesi, Changaya and Mzengeza 2015). The ATCC shall assess all agricultural technologies using the following criteria and guidelines:

- Potential for the quantities and improvement in agricultural productivity arising from the technology, considering the sustainable use of renewable natural resources, and agricultural diversification;
- Potential for contribution to the socio-economic development of the country, including improved household food security, income, labour saving aspects, and import substitution;
- Innovativeness of the technology, in terms of originality, vision and contribution to existing knowledge;
- Compatibility of the technology with national goals, vision, mission, policies and strategic objectives;
- Scientific and technical content of the technology, including justification for the study, the methodology or methodologies used, adequacy and relevance of the data obtained, practicability of the results in Malawi, and where necessary, economic implications and environmental concerns, and
- End-users, or stakeholder demand for the technology or technologies.

The final decision to either release or reject a variety is arrived at by a one-man one-vote process of members only (Benesi, Changaya and Mzengeza 2015).

The ATCC recommends to the Minister of Agriculture and Food Security for approval of all agricultural technologies that should be used by farming communities in Malawi. The Minister of Agriculture and Food Security is empowered by various provisions in the Seed Act (Cap. 67:06), the Fertilizers, Farm Feeds and Remedies Act (Cap. 67:04), the Pesticides Act (2000) and the Plant protection Act (1969) to ensure that only appropriate, suitable and approved seeds, farm animal feeds, fertilizers, pesticides and production practices are used by the farming communities. The ATCC is one of the main committees that advise the Minister of Agriculture on suitable agricultural technologies for use by farming communities to increase crop and livestock productivity in Malawi.

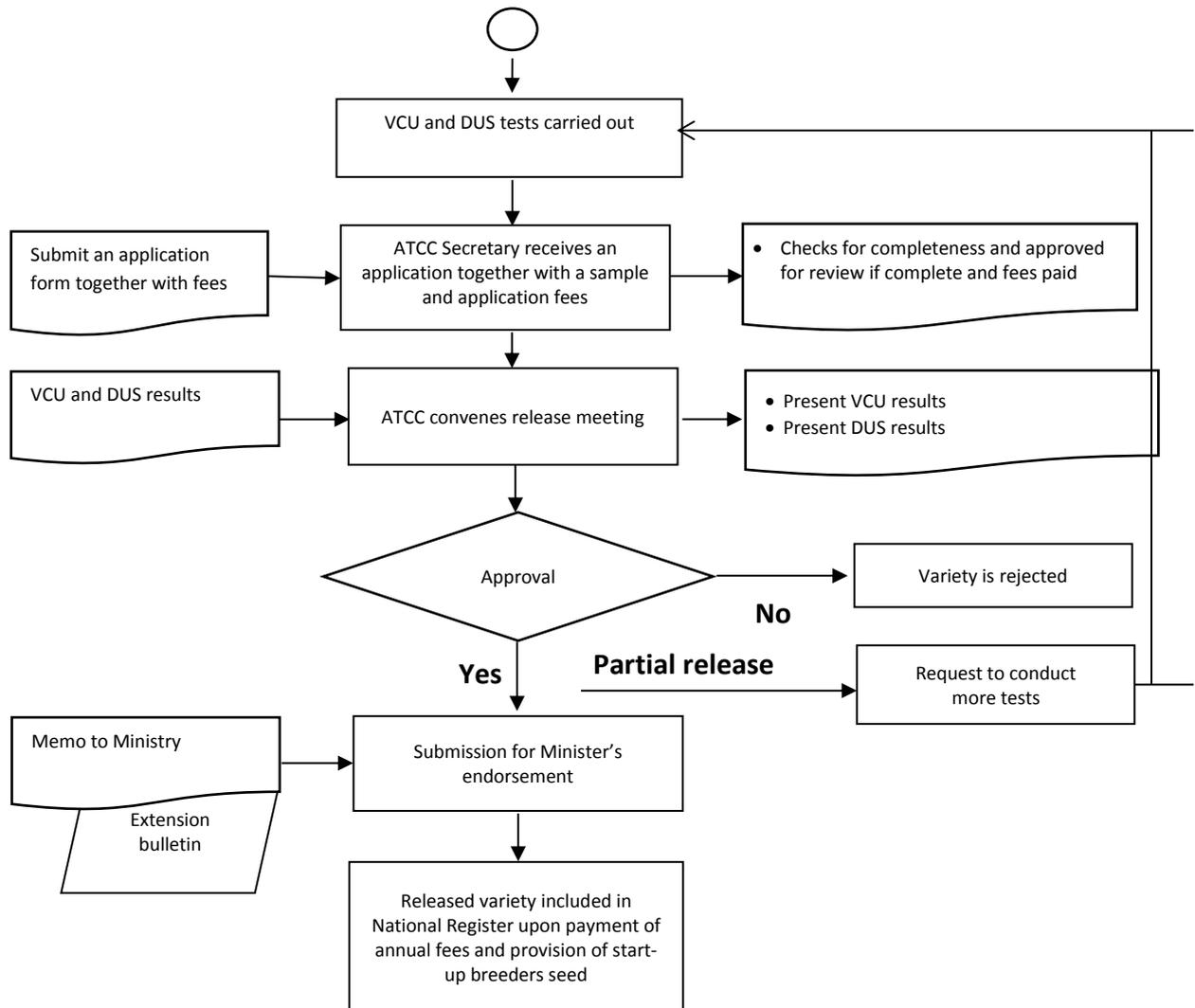
### **Release, registration and de-registration**

If a technology has met all prescribed conditions and the ATCC and Ministry is satisfied, then it will be officially released. Conditional or partial release is possible in cases where stakeholder demand for the technology is high but research data proves inadequate. An application may be rejected if it fails to meet requirements for full or partial release (Benesi, Changaya and Mzengeza 2015).

A name is given to the variety at the point of release. The officially released varieties go into a register managed by the ATCC through its Secretariat. The listed varieties have no validity period but the breeder can withdraw as he/she wishes. However, the ATCC may follow up on released technologies so that those that do not perform on the ground will be dropped from the list (Benesi, Changaya and Mzengeza 2015).

Following release, applicants are required to produce an extension circular which is reviewed and approved by Members of Agricultural Research Publication Committee. There must be some breeders' seed available as startup material at the time of release (Benesi, Changaya and Mzengeza 2015).

### Preliminary trials of candidate variety



**Figure 2:** Malawi's variety release and registration system

## Proposed revisions to Malawi's National Variety Release System

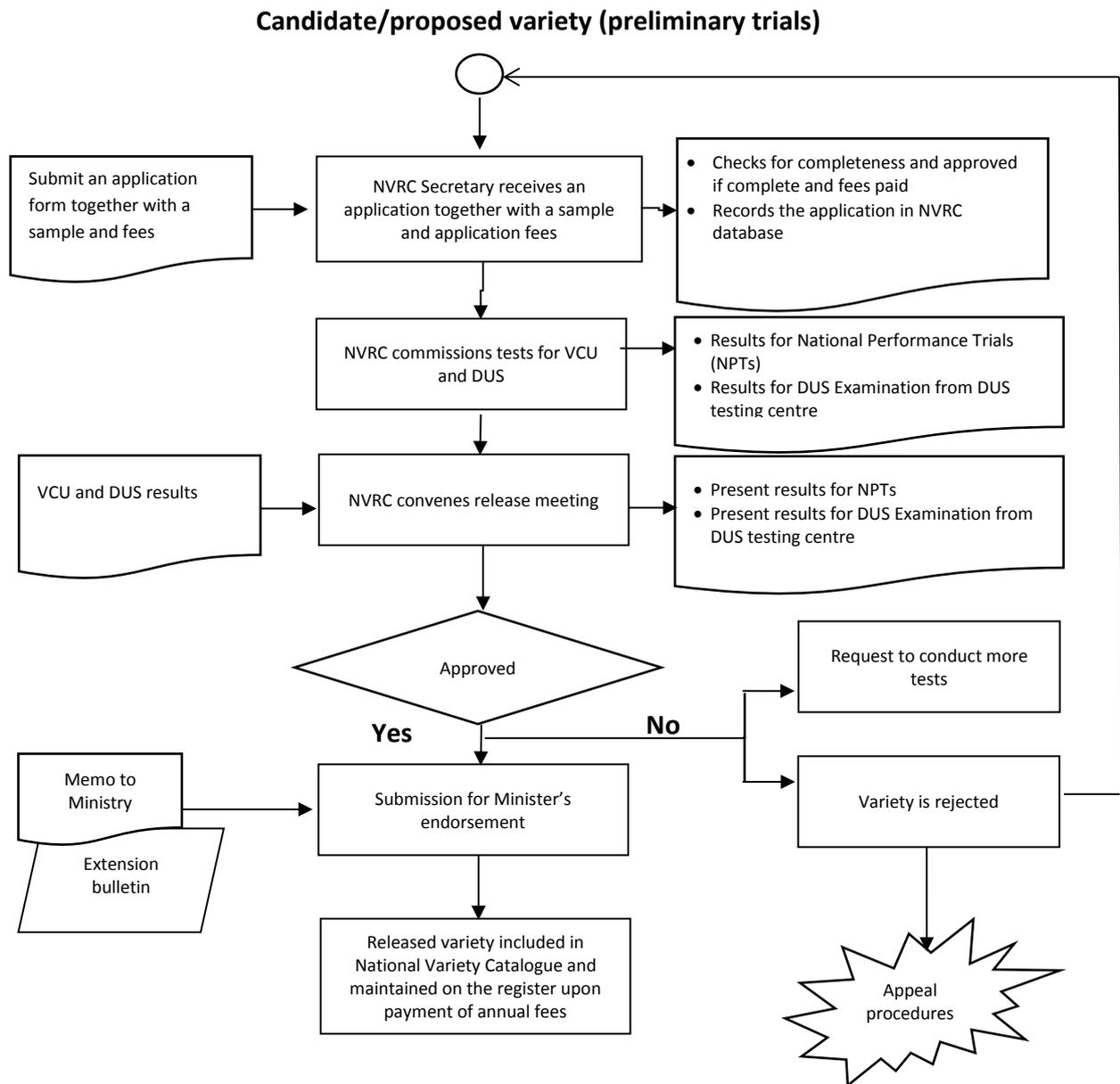
In efforts to align Malawi's national varietal release system to regional protocols it has been recommended that a variety release committee comprising technical individuals be constituted. Further, it was proposed that while the ATCC is not legally instituted, a new National Variety Release Committee (NVRC) should be constituted by an Act of Parliament. Since the current variety release system in Malawi has no legislative mandate, individuals who violate it are not prosecuted. It is therefore imperative that an elaborate variety release system which is clearly embedded in the Seed Act and aligned to the Regional Seed Harmonisation protocols be put in place (Benesi, Changaya and Mzengeza 2015).

A proposed variety release system has been included in the Seed Bill where the NVRC will be responsible for releasing varieties and maintaining the national catalogue. According to Benesi, Changaya and Mzengeza (2015), the proposed composition of the NVRC is as follows:

1. The Minister shall appoint the National Variety Release Committee (hereinafter referred to as 'NVRC') as an advisory committee with the responsibility of reviewing the data and results of a proposed new variety and make a recommendation to release and enter it in the variety list or withdraw it from the register.
2. The Committee shall be composed of qualified persons engaged in variety development or related activities as prescribed in the Regulations.
3. The NVRC operating procedures shall be established by the members and approved in the first convocation.
4. The procedures established by the NVRC for determining the merit of varieties of that species, kind or type of crops, trees, shrubs and pastures shall be:
  - a. Appropriate for that purpose and shall be based on scientific principles; and
  - b. Transparent to ensure that the varieties are dealt with in a fair and consistent manner.
5. The NVRC shall:
  - a. Register varieties of seed in accordance with this Act;
  - b. Advise the Controller of Seeds on testing protocols for varieties of any species, kind or type of crops, trees, shrubs and pastures;
  - c. Advise the Controller of Seeds on the merits and demerits of the varieties of any species, kind or type of crops, trees, shrubs and pastures;
  - d. Advise the Controller of Seeds on the publication of the annual list of varieties of crops, trees, shrubs and pastures grown in Malawi;
  - e. Advise the Controller of Seeds on fees for registration and maintenance of varieties in the variety list;
  - f. Advise the Controller of Seeds on any other technical matters as required; and
  - g. Do all such acts as are necessary or incidental to the better carrying out of the functions specified under this Act.

6. The NVRC shall consist of such qualified persons appointed by the Minister:
  - a. A representative of the Director of Agriculture Research Services;
  - b. A representative of the Director of Agricultural Extension Services;
  - c. A representative of the Forestry Research Institute;
  - d. A representative of Director of Crop Development;
  - e. A representative of the National Seed Commission;
  - f. A representative of the academia, from a faculty of agriculture or crops science;
  - g. A representative of farmer organisations;
  - h. A representative of the agro-processing industry;
  - i. A representative from the seed traders association; and
  - j. Any other person related to the seed activity recommended by the Controller of Seeds and approved by the Minister.
7. The NVRC shall upon receipt of prescribed fee register varieties that can be marketed in Malawi following the national and regional variety release system. The local varieties will also be registered with special provisions.
8. The Controller of Seeds shall be responsible for maintaining, updating and publishing the variety list.
  - a. A new variety may enter into the variety list when it has passed all the tests prescribed under this Act, in terms of DUS, VCU and an appropriate denomination.
  - b. A new variety may also enter the national variety list, as a result of regional agreements on variety release and registration.
  - c. A public or private agricultural organisation may conduct DUS and VCU testing as prescribed under this Act.
  - d. Existing varieties released and available in the market on the date of coming into force of this Seed Act will automatically be registered in the national variety list with the required information within one year.

A variety can be withdrawn from the National Variety Catalogue if the information on the variety is incorrect, annual fees are unpaid, a variety no longer conforms to its original characteristics and if applicant/ seed company / maintainer cannot provide the original material of the variety (Benesi, Changaya and Mzengeza 2015).



**Figure 3:** Malawi's proposed variety release and registration system

## Experience of Seeds2B in compliance with regulatory requirements and procedures in Malawi and Zimbabwe

The Seeds2B Project has had a cordial relationship both with regulators and scientists in Malawi and Zimbabwe. Continuous engagement and inclusiveness has enabled the continued import and local evaluation of new improved varieties for a range of crops.

On numerous occasions the Project linked the regulators from the countries where the seed for the improved crop varieties was obtained with regulators, scientists and the industry in Malawi and Zimbabwe. This resulted in broader understanding and accommodation of emerging requirements in the processes.

The continuous engagement has enabled the Project to prepare adequately towards rolling out the commercialisation of superior varieties that have been tested in the Project countries.

## References

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## Appendices

### Appendix 1

#### **Application for recognition of kind or variety of seed in terms of the Seeds (Certification Scheme) Notice, 2000.**

Application to: Seed Services Institute, P. O. Box CY550, Causeway, Harare, Zimbabwe

Applicant's name, in full:.....

Applicant's postal address.....

Applicant's physical address.....

Kind and Variety of seed submitted for recognition.....

Botanical name of seed.....

Name and address of certifying agency, if any.....

Name of the variety and its parentage (in the case of a variety which is already under commercial production in a foreign country, the name given to such a variety by the breeder should be submitted).....

In the case of a foreign variety:-

a) The country where it was first introduced into the trade .....

b) The name and address of the person who introduced it .....

c) The date of introduction .....

The breeding history of the variety.....

The names of already recognized varieties of the same kind with which the variety is comparable.....

The purpose or use for which the variety was bred .....

Complete description of the morphological, physiological and other identifying characteristics of the variety. Mention distinguishable off-types, if any.  
.....

Complete description of the known phenological characteristics of the variety  
.....

Performance data, including yield, insect or disease tolerance/resistance and other factors which would aid in establishing distinctness of the variety  
.....

Special suitability of the variety for certain growing conditions: (mention areas recommended for production) .....

Procedure for maintenance of stock seed .....

I declare that the information supplied is, to the best of my knowledge, true and correct.

Date:.....



Ministry of Agriculture, Irrigation  
and Water Development

AGRICULTURAL TECHNOLOGY CLEARING COMMITTEE

ATCC\_TRA-0217

**AGRICULTURAL TECHNOLOGY RELEASE APPLICATION FORM**

<b>Date of Application:</b>			
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**Title of Proposed Technology (As it will be on a registration certificate) :**

<b>Experimental Code:</b>		<b>Source of code:</b>	
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<b>Commodity</b>		<i>If other, add one:</i>	
<b>Category of Technology:</b>		<i>If other, add one:</i>	
<b>Type of Technology:</b>		<i>If other, add one:</i>	

**Applicant's Information:**

Applicant's Name:			
Nationality:		Gender:	
Current Postal Address:			
District/City/Town:		Location	
Country of Residence:			
Mobile Number:			
Primary Email address:			
Alternative Email Address:		Social Media Links:	

**Institutional Arrangements**

Lead Research Institution:			
Principle Investigator (PI):		Profession	
Research collaborators, institutions, and roles:	<i>Name</i>	<i>Institution</i>	<i>Roles</i>
Sources of funding,		Total Budget:	
Partnership Agreements (Item 6a):			
Service Agreements (Item 6c):			
Patenting Agreements (Item 6b):			

**Research Information (Item 1)**

Statement of the Problem:	
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Research Objectives:	
Research Justification:	
Research Methods Used (Research cycles, sites, reps, treatments, and analysis)	
Conducted Participatory Technology Evaluation (Item 7a, 7b, and 7c):	
Research Protocols used (Item 5):	
Strengths of the new technology:	
Challenges Encountered:	
Future research areas:	

#### Compliance with Regional Agreements

Distinct, Uniformity and Stability (DUS)	
Value for Cultivation and Use (VCU)	
Other regional standardized procedures	

I **certify** that all information provided on the **ATCC/TRA-0217 Form** is true and correct to the best of my knowledge. I **agree** to comply with the ATCC Requirements for Submissions of this Application. (page 3).

**Signature of Applicant:** \_\_\_\_\_ **Place:** \_\_\_\_\_ **Date:**  
 \_\_\_/\_\_\_/\_\_\_

Thank you for filling the Form. Remember to submit the form to ATCC secretariat it in time.

#### Official Use Only:

Validation Required Conditions		
Validated the submitted full proposal:	Yes	No
Submitted all required documents including draft extension circulars:	Yes	No
Compliance status of all submission made:	<input checked="" type="checkbox"/> Complied <input type="checkbox"/> Non-Complied	
Application Payment Details:		
Designated File Number:		

**Name:** \_\_\_\_\_ **Signature:** \_\_\_\_\_ **Date:**  
 \_\_\_/\_\_\_/\_\_\_

## INSTRUCTIONS AND REQUIREMENTS FOR SUBMISSIONS OF ATCC\_TRA-0217 FORM.

*I understand the following conditions are applicable to ATCC Technology Release processes:*

- a) Submission of a full proposal to release the said agricultural technology using ATCC guidelines format. Submission should be made in electronic format on the deadlines set by ATCC Secretariat. (It is referred to as *Item 1*)
- b) Submission of a drafted extension circular of the technology to be examined by ATCC members (*Item 2*).
- c) Provision of certificates of registration in SADC/COMESA or its member states. [*If the technology is regarded to be under regional harmonization protocols*] (*Item 3*).
- d) Provision of product chemical compositions and manufacturer's recommendations for use as it appears in the proposal write up (*Item 4*).
- e) Provision of relevant research protocol used to develop the said technology as it appears in the proposal write up (*Item 5*).
- f) Provision of relevant Agreements made by Research Partners prior or after to research work (*Items 6a, 6b, and 6c*).
- g) Provision of criteria used for Participatory Technology Selection specifically on PVs, organoleptic tests, and other approaches use (*Item 7a, 7b, and 7c*).
- h) Submission of details or copies payment made with this application (*Item 8*).
- i) Submission of a filled the ATCC\_TRA-0217 Form to ATCC Secretariat. (*Item 9*).

### Notice

- *All applicants will be notified about the acceptances or rejections of ATCC\_TRA-0217 Form through their primary and alternative email addresses.*
- *Request for changes on this ATCC\_TRA-0217 Form can be done in 10 working days before the scheduled ATCC -Technology Release meeting.*

## ALL ENQUIRIES AND SUBMISSIONS MUST BE DIRECTED TO:

### The Secretary for ATCC

Department of Agricultural Research Services

P.O. Box 30779

Lilongwe 3.

Tel.: +265 1 707 011

Fax: +265 1 707 378

Mobile phone: +265 992 220 369/+265 999 330 061/+265 882 955 759

Email: [agric-research@sdpn.org.mw](mailto:agric-research@sdpn.org.mw)

You can visit us at **DARS Hq.**

Located at **Chitedze Research Station**, near **ICRISAT** and **Seed Services Unit (SSU)**