



SOKOINE UNIVERSITY OF AGRICULTURE

COLLEGE OF AGRICULTURE

DEPARTMENT OF SOIL AND GEOLOGICAL SCIENCES

FIELD PRACTICALS TRAINING (FPT) GUIDELINES
FOR THE
BSc AGRONOMY DEGREE PROGRAMME

June 2016

1.0 INTRODUCTION

1.1 Background information

BSc Agronomy is one of the undergraduate degree programmes under College of Agriculture (CoA) that aims at providing a degree-level education in Agronomy, from which the graduates can enter a career in the agricultural industry or employment or related scientific sectors or develop capacity to undertake research in agronomy and related sciences, as well as organization of agricultural extension services. The programme is, therefore, designed to develop wide knowledge and skills required by those involved in agricultural production, research and provision of agricultural advisory services.

Field Practicals Training (FPT) is an integral part of the BSc. (Agronomy) degree programme curriculum offered by the Department of Soil and Geological Sciences at Sokoine University of Agriculture (SUA), Morogoro, Tanzania.

The major aims of FPT include:

- To impart practical skills to the students like the use of scientific laboratory and field agricultural equipment and carry out routine agricultural operations in the field.
- To provide practical knowledge in handling and processing of agricultural materials and other agricultural inputs and outputs.
- To impart skills to the students in the field of agronomic planning, organization and extension services.
- To foster practical agronomic attitudes in the fields of awareness, agronomic input costs, input-output interactions and relationships.
- To design agronomic experiments and collect and analyze data from field experiments
- To enhance actual field agronomic activities like soil survey and mapping, application of fertilizers, manures and other soil amendments.
- To enable students to appreciate, comprehend and perform the various activities in soil fertility management, land use planning, soil and waste management.

To-date most of the aforementioned, aims have not been achieved by the FPT due to a number of challenges in the organization and conduct of the FPT within the College of

Agriculture (CoA). These challenges include inadequate funding, lack of the appropriate and sufficient number of FPT stations, poor and inadequate supervision, inappropriate timing of the field practicals training that is always off season for most agricultural activities, and the lack of relevance of the FPT activities at the FPT stations.

The FPT is an essential requirement of the three-year B.Sc. (Agronomy) degree programme and currently is conducted for 5 weeks at the end of the fourth and sixth semesters, for 2nd year students and 3rd year students, respectively. FPT shall involve attachment of students to farms, research stations, training institutes and agro industries. Field practical supervisors shall make the assessment of the field practical training. A pass in the FPT shall be required before a candidate is allowed to proceed to the next semester or to graduate in case of a student in the last semester.

1.2 Objectives of the Field Practical Training (FPT)

1.2.1. General objective

The general objective of the FPT for BSc Agronomy as in other degree programmes under College of Agriculture (CoA) is to enable the students to get hands-on skills to complement theoretical and practical instructions offered at the University.

1.2.2 Specific objectives

The specific objectives for BSc Agronomy are to:

- Enable students to understanding and appreciate various agricultural and agronomic practices under field conditions
- Provide an opportunity to apply theoretical knowledge and practical skills gained in class to current agronomic practices in the agricultural industry.
- Provide opportunity for potential employers and other stakeholders to assess our students
- Create a foundation and opportunities for employment in public and private sectors.

- Develop abilities, such as planning, organizing, executing, mitigating problems, communicating with professionals in the agriculture sector.
- Foster attitudes, e.g., entrepreneurship tendencies, sense of responsibility, conscientiousness, analytical in operations cost effectiveness, team work, etc.

2.0 SCOPE OF THE FPT GUIDELINES

These Guidelines are intended to provide the basis for implementing the FPT for BSc Agronomy students in the Department of Soil and Geological Sciences. The Guidelines provides:

- The General Regulations for FPT – these regulations provide all relevant information to ensure efficient conduct of the FPT programme under CoA;
- Clarifications on the kind of reports which are expected to be produced by the students at various levels of FPT;
- Procedures to be used by both local supervisors at FPT stations and the academic supervisor from SUA in supervising the FPT, assessing and grading of the FPT performance of students.

These guidelines are, therefore, intended to be a resource book for students, on station-FPT training officers and supervisors.

3.0 PREPARATION OF FIELD PRACTICAL TRAINING

The FPT in the Department of Soil and Geological Sciences(DSGS)shall be conducted for five weeks at the end of the fourth and the sixth semester or at any other time within the academic year as may be decided by the CoA Board. DSGS is solely responsible for allocating FPT places to all students. However, students may be allowed to propose FPT stations (including farms, research stations, training institutes and agro industries, etc) of their own interest at least eight weeks before commencement of the FPT. All FPT centres proposed by students need to be approved by the Department before commencement of the FPT. Practical Training at a centre not approved and not allocated by the Department before the start of the FPT will not be recognized.

4.0 PROCEDURES TO BE FOLLOWED DURING FPT

- 4.1. The students must read and ensure that they are conversant with the FPT Guidelines for BSc Agronomy degree programme (downloadable from SUA website) throughout the FPT period. Before departure for FPT, each the student will be provided with FPT Logbook, a letter of introduction to the allocated FPT station, Arrival Note (*Appendix 1*) form and ‘On-Station FPT Assessment Form’ (Appendix 2).
- 4.2. The “Arrival Note” form prepared and issued by the Department to each student will be filled and returned to the Department by the student within the first week after reporting to the FPT station.
- 4.3. The Training officer (On-station Supervisor) will ensure that the training program is set up and shared with the FPT coordinator/SUA supervisor before the end of the first week of FPT. This program will form the basis for supervision and students’ assessment when SUA supervisor visits the station.
- 4.4. Each student will be visited by the SUA supervisor at least once during each FPT period. The purpose of the visit is to co-supervise the FPT and provide an opportunity to share and gather experience about FPT at the station; and to discuss challenges of mutual interest as well as to contribute to the training programme and guide students on report writing. In addition, the SUA supervisor shall be responsible for guiding the on-station supervisor on how to fill the ‘On-Station FPT Assessment Form’ (Appendix 2).
- 4.5. The student is responsible for bringing the duly filled (by on-station supervisor) the ‘On-Station FPT Assessment Form’ in a sealed, confidential envelope together with his/her Logbooks and FPT reports to the Department FPT Coordinator.

5.0 TRAINING LEVELS

Students at different levels of learning possess different skills and abilities and hence the tasks they are expected to perform during FPT should also differ accordingly. Therefore, each FPT session is intended to impart technical competence to students according to level of training achieved as follows:

FPT 1: This is for the 2nd year students in the B.Sc. Agronomy degree programme. The 2nd year B.Sc. Agronomy students do their first FPT immediately after the end of semester 4 University examinations or during their 2nd year of study at SUA. Second year students doing FPTI will preferably be allocated to the Agricultural Research Institutes and Agriculture Training Institutes under the Ministry responsible for Agriculture and Food Security where they are expected to work at the level of Agricultural Field Assistants.

FPT 2: This is for the 3rd year students in the B.Sc. Agronomy degree programme. Students in their third year of study will undertake the FPT immediately after the end of semester 6 University examinations or during their 3rd year of study at SUA. At this level the students are expected to be given opportunities to familiarize themselves with the requirements of professional practices. Students doing FPT2 should therefore be working at the level equivalent to Agricultural Field Officers/Agricultural Officers in the capacity of skilled worker-technician/professional level. Students doing FPT2 will do the following: carry out tests and experiments, do supervisory work, do some planning and design activities, modifying existing practices or introduction to new innovations, carry out management decisions etc. The FPT2 stations will include large scale farms (Estates), agricultural inputs industries and providers, agricultural oriented public and private organization, agricultural NGO'S and agricultural extension institutions and agricultural research and training institutions.

6. FIELD PRACTICAL TRAINING LOGBOOKS AND REPORTS

6.1 FPT Logbooks

For each of the FPT sessions (FPT1 or FPT2), each student will be provided with an FPT Logbook in which he/she will be required to record day to day FPT activities carried at the station for the whole FPT period. The Logbook has to be compiled at FPT station. For any week the Logbook consists of the following:

- a daily record giving short description of actual work done (**Appendix 3**)
- a weekly summary of essential activities (work) performed in the week (**Appendix 4**)

The Logbooks have to be checked and signed weekly by the On-station supervisor/Training officer. Together with Logbooks, each student is also required to write and submit general and technical reports which will be assessed by the SUA academic staff who supervised the student's FPT. A space for writing these reports is provided in the Logbooks (immediately after the weekly reports)

6.2. The FPT Reports

6.2.1 Objectives of the General and Technical FPT reports

The objectives the General and Technical FPT reports are to foster and to reflect on the:

- Students understanding and appreciations of various agricultural and agronomic practices performed at the FPT station
- Students appreciation of what might be their responsibilities after graduation and of the people they will have to work with
- Students' abilities to communicate scientific information

6.2.2. Guidelines for preparation and submission of FPT reports

Every student is required to submit a written report at the end of the field practicals training (FPT) period. This report is to be compiled in accordance with the FPT guidelines. Before being submitted to the Department for assessment, the completed reports have to be signed by the student and counter signed by the Training Officer at the FPT station where the student took the training. The reports to be submitted shall consist of two parts: a General report and a Technical report. However, it is expected that the emphasis and contents in the different sections of the report will differ depending on the year of study for the FPT. Consequently, the assessment of the different sections of the reports will reflect the emphasis in the different FPT years as shown on the assessment of FPT1 and FPT2 (Table 1)

FPT reports must be submitted together with Logbooks to the Department by or before the end of the second week after the FPT training period; otherwise one would be deemed to have failed FPT.

6.2.2.1 The general report

The aim of the general part of the FPT report is to describe the activities of the organization, institution or company where the FPT is conducted including description of the departments/sections in which the student will be attached. In addition, the report is intended to show the inter-relationships within the organization and its linkages with other institutions. Illustrations such as the organization chart may be used to elaborate on responsibilities and flow of information within the organization. For that matter the general report shall include:

- Background information of the institution/company (FPT Station), organization and its management set up (including organization chart), that is the goal, purpose and objectives/aims of the organizations with aspects to the government development strategies.
- Production and work performance at FPT Station
- Research or production thrust at FPT Station
- Community involvement and benefits around the FPT Station
- Relevance of programmes carried out to environmental developmental and policy issues.

6.2.2.2. The technical reports

The technical reports are aimed at giving the opportunity to the students to contribute their own opinion on possible solutions for existing problems on such matters or issues relevance to BSc Agronomy curriculum. These include but not limited to:

- The agronomic practices
- Management of field/horticultural crops
- Soil water conservation
- Postharvest operations of various crops
- Production in large and small scale farms
- Irrigation and management of irrigation systems
- Agronomic experiments
- Soil fertility management practices and management of problem soils
- Soil fertility assessments
- Use and application of fertilizers
- Marketing systems

- Crop protection practices
- Agricultural Equipment and instrumentation
- Innovations and improvements, etc
- Specific activities conducted at the stations, etc.

Possible outline for the technical report may consist of:

- Introduction
- Problem identification or justification
- Data collection and analysis
- Discussion (or alternative solutions)
- Conclusions and recommendations and suggestions

It is anticipated that the students' personal contribution to the identified problems will be clearly shown in the discussion part of the reports where alternative solutions may be presented or suggested.

Since the technical reports are supposed to deal with actual problems encountered during the FPT, their contents will be reflected in the Logbook which consists of the daily and weekly records of the activities done.

7.0 ORGANIZATION/PLANNING OF FPT AND SUPERVISION

Organization and planning of the supervision of FPT in the Department of Soil and Geological Sciences will be undertaken by Departmental FPT Committee with guidance from the Head of Department, and facilitation by the office of the Principal, the College of Agriculture. The SUA FPT supervisors shall be appointed by the Head of Department of Soil and Geological Sciences which hosts The BSc Agronomy degree programme.

The person who will be working with the students and responsible for the day to day supervision of the students at the FPT stations shall be the Training Officer (Local supervisor) appointed by the management of the FPT station (organization, institute or company) from among the senior technical personnel.

7.1 Duties of the On-station supervisors (Training Officers)

The appointed On-station supervisors (Training Officers) are expected to ensure the smooth running of the FPT at the station and report accordingly. Since the Training Officer has other responsibilities, he/she should treat the students just like other workers who are responsible to him/her in terms of productivity, efficiency and discipline.

The student is expected to work somehow independently requiring minimum supervision from the Training Officer. In any case, the Training Officer should give only limited assistance to the students.

The duties of the On-station supervisors (Training Officers) shall therefore include the following:

- To prepare suitable training programme for the student(s) (if possible in collaboration with the supervisor from Department of Soil and Geological Sciences)
- To administer and follow up the training programme
- To sign the student's reports and log books once every week
- advise/guide students on FPT reports writing
- To complete the 'Arrival Note' and fill the 'On-Station FPT Assessment Form' for each student.

8.0 REGULATIONS ON ASSESSMENT OF FPT LOG BOOKS AND REPORTS

- 8.1. All students must report to the allocated FPT stations only. A student who fails to report to the allocated FPT station without permission from FPT coordinator shall be deemed to have failed the FPT and shall be required to undertake the FPT at his/her own time and cost during the next FPT session
- 8.2. To avoid duplication and repeating of FPT activities, no student shall be allocated to the same station for FPT1 and FPT2
- 8.3. Since the tasks expected to be performed by the 2nd year students at FPT1 and the 3rd year students at FPT2 are different, then 2nd year students should not be allocated to the same station as the 3rd year during one FPT period.

- 8.4. FPT Logbooks and reports will be assessed and marked by the academic staff who supervised the students' FPT, and the results will be subject to consideration by the Department Examiners Board before submission to the College Board for approval.
- 8.5. The FPT marking/assessment shall involve the following components:
- Continuous (day-to-day) assessment made by the On-Station Supervisor during FPT period. This shall contribute 30% of the overall assessment as shown in Table 1 and Appendix 2
 - Logbooks, written General and Technical reports– all assessed by the SUA supervisor (70%)
 - Qualitative Character Assessment for each student made by the On-Station Supervisor for the entire FPT period (see Appendix 2). A penalty shall be imposed on final FPT score in case of bad character assessment made by the On-station supervisor. The penalty level shall be determined by the score in Part 2 of the 'On-station FPT assessment form'
 - The criterion for final (overall) FPT assessment is as detailed in Table 1. The emphasis on report content is as indicated by assessment weights, and this change according to the year of study.
- 8.6. Each student will be required to pass the FPT1 (year 2) and FPT2 (year 3) before graduation. The FPT pass mark is 50%
- 8.7. A student failing FPT will be required to repeat/supplement the FPT at his/her own cost.
- 8.8. Not completing a full FPT period without compelling reasons means abscondment from that FPT and the student shall be discontinued from studies.
- 8.9. A student failing to complete FPT with compelling reasons shall be required to request for postponement of the remaining FPT component, and if allowed shall complete the remaining part of the FPT during the vacation or when next offered.
- 8.10. A student allowed to postpone FPT shall be required to undertake the FPT during the vacation or when next offered
- 8.11. A student who fails after doing FPT as a third attempt shall be required to retake the course and if he fails for the fourth time shall be discontinued from studies.

8.12. A student who will be reported to have performed any gross misconduct during FPT period shall be reported to the University Management and such case will be dealt with according to the SUA Students' by-laws.

Table 1 Overall FPT Assessment Form

FIELD PRACTICAL ASSESSMENT FORM (Overall marks)

Candidate Name: Reg. No: FPT: **1,II,III** (tick)
 Examiner's Name: Department: Date:

ITEM	Maximum score		Scored marks
	FPT I	FPT II/III	Examiner
Assessment by the Training Officer at the FPT Station			
1. Skills obtained	6	6	
2. Attitude to work	6	6	
3. Initiative and independence	6	6	
4. Reliability	6	6	
5. Adherence to time working time	6	6	
Total marks by Training Officer	30	30	
Assessment of the Logbook (by the SUA supervisor)			
1. Adherence to guidelines	15	5	
2. Presentation (neatness)	5	5	
Total marks (Logbook)	20	10	
Assessment of the FPT Reports (by SUA supervisor)			
General report	15	10	
Technical Report:			
1. Description/analysis	10	10	
2. Problem identification	5	10	
3. Discussion	10	15	
4. Recommendation(s)	5	10	
5. Neat (illustrations, etc.)	5	5	
Total marks - Reports	50	60	
TOTAL MARKS	100	100	
Penalty for Character Assessment (max. -20 marks)			
GRAND TOTAL SCORE (%)			

Remarks by SUA Examiner:

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FPT STATION ARRIVAL NOTE

PART A (To be filled by student)

Name of student:

Year of study: FPT No.....

I declare that I have started working with [Name of the FPT Station]

.....

Address: P.O. Box.....

E-mail.....

Location.....

Tel. No:

Date of starting FPT:

Student's mobile phone No:

Student's email address:

Signature of student: Date:.....

PART B (To be filled by On-Station Supervisor)

I certify that the information given above is correct to the best of my knowledge.

Name of On-Station Training Supervisor:

Position:

Mobile phone:

Email address:

On-Station Supervisor's signature: Date:

Official rubber stamp

To be sent by the student (through post or email)immediately after arrival to:

FPT Coordinator
Department of Soil and Geological Sciences

Sokoine University of Agriculture
P.O. Box 3008, SUA, Morogoro
Email: akaaya@suanet.ac.tz copied to primitivaandrea@yahoo.com

Appendix 2: On-Station Student's FPT Assessment Form

ON-STATION FPT ASSESSMENT FORM [to be filled by On-station supervisor]

This is to certify that Mr./Ms. [Name of the Student]
has completed a period of field practical training with our Institution from to
..... [Dates] Name of the Institution

The trainee has worked at the level of '**Agricultural Field Assistant**'/'**Agricultural Field Officer**' [Tick one] and
the duties assigned to the trainee were [List]:

.....
.....
.....

Name of On-Station Supervisor: Position:

PART 1: PRACTICAL/WORKING SKILLS

Please assign a grade between 0 and 6 to each one of the items 1 to 5 below according to the following
grading scale: 5.1 – 6.0: Excellent

4.1 – 5.0: Very good

3.1 – 4.0: Good

2.1 – 3.0: Satisfactory

< 2.1: Fail

1. Place the grade in dotted lines for each item.

i) Skills obtained

ii) Attitude to work

iii) Initiative and Independence

iv) Reliability

v) Adherence to working time

2. Number of days the trainee was absent from work.....

Reason(s) for absence.....

3. Was the logbook submitted to you weekly for your comments and signature? (**Yes/No**).....

4. Was there any gross misconduct (e.g. lack of respect to supervisors, fighting, destruction of property, use
of abusive language, drunkardness during working time, stealing, etc) by the student at any time during
working hours in the entire FPT period? (**Yes/No**).

If **Yes** provide brief description

.....

.....

.....

PART 2 CHARACTER SKILLS ASSESSMENT *(tick whichever is applicable)*

S/N	CHARACTER/SKILLS ASSESSED	Outstanding	Above average	Average	Below average	Poor
1.	Ability to work in a team					
2.	Dependability, Reliability and Trustworthiness)					
3.	Demonstration of a sense of maturity					
4.	Ability to lead, motivate and resolve conflicts					
5.	Ability to devote working time exclusively to work related duties					

REMARKS

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Training Officer's name: Position:

Signature Date and Place:

Official rubber stamp

Appendix 3. Sample of Logbook Daily Record

FIELD PRACTICAL TRAINING LOGBOOK SHEET		
Weekly Report No.	Week from:	To:
	Brief description of work performed	Hours
Monday		
Tuesday		
Wednesday		
Thursday		
Friday		
Total hours per week		
Signature of Training Officer:		Date

Appendix 4.A sample of blank sheet for Weekly Summary

FIELD PRACTICAL TRAINING LOGBOOK SHEET		
WEEKLY SUMMARY	Week from:	To:
Name	Date	