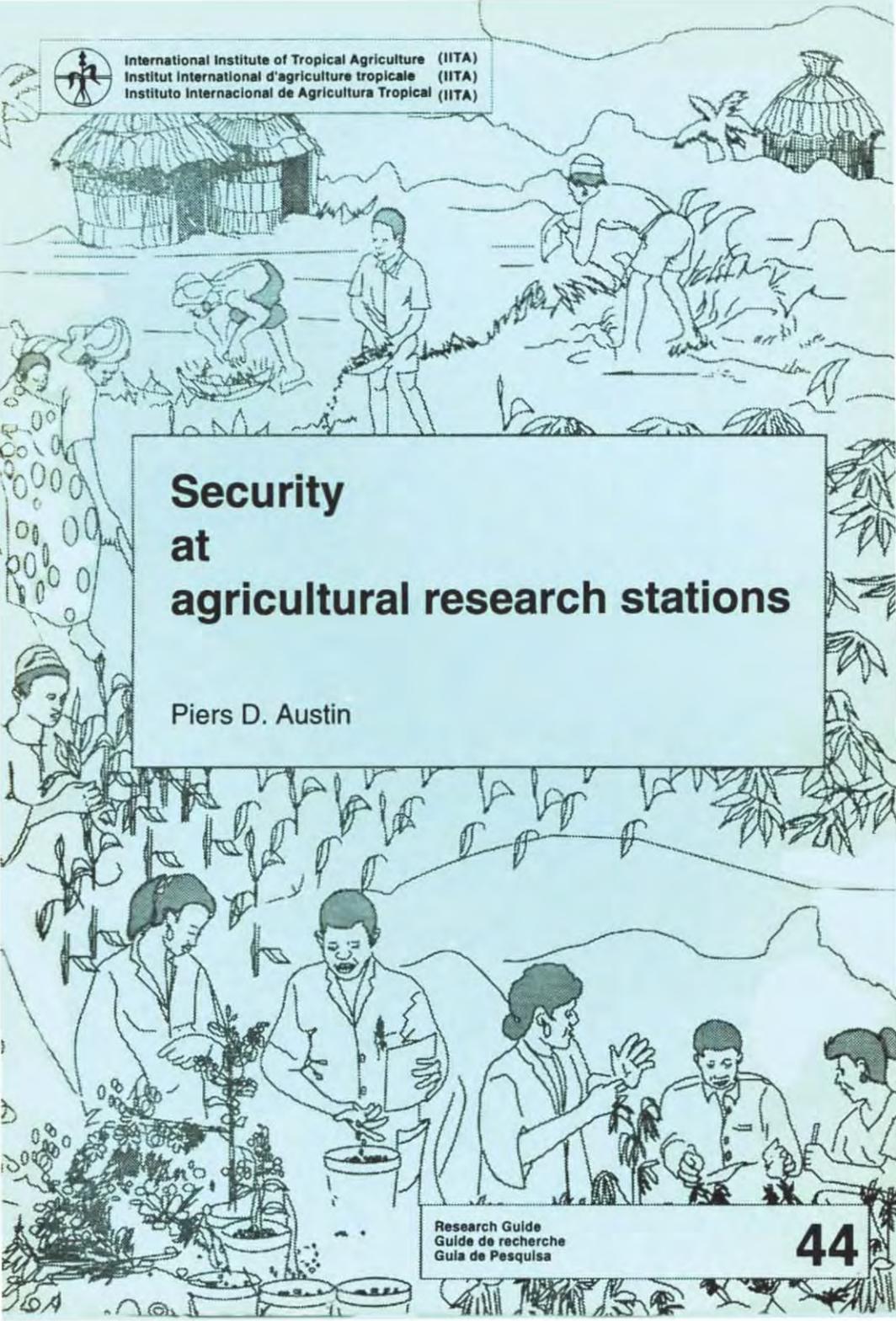




International Institute of Tropical Agriculture (IITA)
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Security at agricultural research stations

Piers D. Austin

Research Guide
Guide de recherche
Guía de Pesquisa

44

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Security at agricultural research stations

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IITA Research Guides

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Security at agricultural research stations

Objectives. This guide is intended to enable you to:

- discuss the need for security,
- establish community and police relations,
- build up a security force,
- design your research station under security aspects,
- design and conduct security operations,
- prevent pilferage.

Study materials

- Farm map.
- Map of farm surroundings.
- Security facilities and materials.

Practicals

- Identify security risks at research stations.
- Design a security plan.
- Compare costs with risks of security.
- Practice the use of security facilities and materials.

Questions

- 1 Why is theft of crops from a research station of special importance?
- 2 Why are private security arrangements often necessary?
- 3 What may induce some people to turn to unlawful activities?
- 4 What are three types of crime you may experience on a research station?
- 5 What security activities can be classified as illegal?
- 6 What local circumstances determine levels of security investment?
- 7 What role does a security unit cover in addition to crime prevention?
- 8 How can you use relations to local people to improve security?
- 9 How can you approach the local police?
- 10 Why is your security force of men not infallible?
- 11 What steps can you take to improve your security force?
- 12 Why should you never deploy only one man to a guard post or patrol?
- 13 What are the advantages of using dogs?
- 14 What simple factors of site layout can improve security?
- 15 Why should you not allow keys to be taken off site?
- 16 What is the limitation of fences?
- 17 What are the purposes of gate control?
- 18 Why do people pilfer crops?
- 19 Why is pilferage at a research farm especially serious?

Security at agricultural research stations

- 1 Need for security**
- 2 Community and police relations**
- 3 Security force**
- 4 Buildings, site layout, fences**
- 5 Operations and gate control**
- 6 Pilferage**
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Abstract. *Research stations are difficult to secure; yet security is especially important, because research results are lost if experimental crops, equipment and data are stolen. Security aims to protect life and property. Funding for security may seem wasted, but only one incident can cost more than investment in security. Security begins with good relations to the surrounding community. Security includes the establishment of a security force, appropriate station layout and fencing, and correct security management.*

1 Need for security

As a research station manager in a densely populated area, the author has experienced a variety of situations demonstrating the importance of security:

- robbery at gun-point,
- armed warfare between villages,
- breaching of station fences for theft,
- theft of equipment,
- pilfering of items ranging from crops to pencils.

The theft of crops from a research station is of special importance, because research results are lost, when experimental crops are stolen.

Private security arrangements are often necessary because national police forces cannot give the protection required in the remote areas where agricultural research takes place. Communication is often poor, such that in the event of a burglary or raid, it is not possible to telephone and have police arriving within minutes!

Farms are more difficult to secure than industrial premises. They are large areas with facilities and buildings often widely dispersed.

Increasing population pressure on farmlands coupled with often high unemployment, induces some people to turn to unlawful activities literally to survive. Criminals are either desperate but ordinary people, or professional gangs. Professional gangs are invariably ruthless and best not tackled. They will eventually make an error of judgement and meet up with the law enforcement agencies.

Types of crime likely to be experienced are:

- theft of crops or livestock for sale or direct consumption;
- theft of physical assets to be sold to raise money;
- arson or other forms of sabotage by people who have a grudge against your establishment.

Security aims to protect life and property without falling foul of the law in the process. Inflicting fatal wounds on intruders, or using electrified fences are examples of illegal security activities.

Expenditure on security personnel and equipment is often difficult to justify. Management tends to view it as wasted expenditure as months may pass without incident. However in one night, thieves could make away with equipment whose value far exceeds investment in security. When components are stolen, a machine may be immobilized for months. In the case of a tractor or harvester, field operations can be affected seriously.

Governments or donors funding agricultural projects should expect that some of their funds will be used to protect equipment and assets.

Expenditures for security depend on local circumstances, such as:

- proximity of towns, villages and settlements,
- vicinity of tracks, rivers and major road networks,
- attitude of neighboring peoples towards crime and stealing, including religious and cultural influences.

The role of the security unit covers more than simple crime prevention. Security personnel are on duty during the night and week-ends when regular staff are not around. Patrolling men help to detect fires and other problems associated with buildings and equipment, such as water or gas leaks. Quick remedial action minimizes losses and damage.

2 Community and police relations

Local people. Contact the head of the nearest village or settlement. Identify areas of cooperation. Employ some local people of good character as farm laborers and security watchmen. Local people then have a vested interest in your establishment and may help to prevent thefts.

Encourage interest in the farm by distributing improved planting material to locals. Increased food production may even reduce crop theft. Other activities help to create good relations, such as sending a tractor and mower to mow the local football pitch. Such actions cost little but are usually greatly appreciated.

Local police. In the same way, approach the local police. Go to the nearest, large police station. Explain to the station officer who you are and what you do. Invite him to come to the farm and show him round. Possibly, give him some farm produce to take home and tell him to feel free to call at any time. Contact with the top man can eliminate the problems of having to deal with many lesser ranks. Ask for his ideas on local crime prevention. See if the police can patrol your farm at night, although vehicle and funding problems often make police patrols ineffective.

Other factors. Compile a list of your assets and equipment, including model and serial numbers to identify stolen items.

Mark or label property boldly and clearly with your organization's logo or insignia. This makes items conspicuous and deters theft.

If possible, arrange police escorts when you carry large amounts of money. Police escorts usually cost a small fee, but help to assure safe delivery.

Try never to keep large amounts of money such as wages at the farm overnight or longer, even in a safe. This knowledge soon gets around!

3 Security force

Your security force of men will not be infallible. They are likely to be overcome if the opposition is too strong and will save their own lives first. Security men tend to relax if several months pass without incident. Regular meetings are advisable to remind guards of objectives and consequences of lapses.

Thieves have the advantage of surprise and probably inside information on how the men are deployed. They will select any object or item not well secured. Thieves often come in the early hours of the morning when security men may be asleep. Consequently, thieves often come and go without discovery.

Steps to take to improve your security force are:

- Recruit ex-policemen or men with military service as far as possible.
- Check their discharge papers and letters of reference.
- Deploy your security men either to particular guard-posts or on patrols.
- Do not try to patrol and protect the entire farm.
- Keep property and assets in collective groups associated with buildings and man these areas effectively.
- Ensure the men's morale and health by providing shelter and protective clothing against foul weather.

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- Never deploy only one man to a guard post or on patrol. Men should be in a minimum of pairs, so that in the event of any problem, the second man can help or assist.
 - Post less experienced men with more experienced men so that a form of leadership emerges and on-the-job training takes place.
 - Provide some form of communication such as pocket transceiver radios, whistles or torches.
 - Institute a system of regular call-ins and if a post does not call in, send assistance automatically.
 - Set up a roving patrol using a vehicle if available, to enable the supervisor to visit posts, keep the men alert and discuss happenings.
 - Arrange each 'beat' to overlap with the next patrol. This allows the men to meet and relieve boredom.

The combination of using men and dogs works well. Healthy dogs have better senses than man and can give earlier warnings of intruders. If the dogs are of a decent size, they act as a good deterrent. Nobody in his right mind wants to tangle with a big, unknown dog. Information soon gets around that you are using dogs and many would-be-thieves keep away. A dog is no more expensive than the cost of a security man.

When using security dogs:

- find suitable dogs of Alsatian descent;
- have veterinary checks done before purchase;
- provide suitable shelter for the dogs' day rest period;
- observe men and dogs working together and select the best teams;
- find a regular source of food for the dogs for example, meat, bones and offal from a slaughter house or market. Cooked rice, maize or some other grain can be mixed as a filler;
- arrange monthly veterinary checks;
- inspect the dogs yourself weekly for health problems or loss of condition. (De-worming may be needed or a shampoo wash to get rid of ectoparasites).

4 Buildings, site layout, fences

Design and construct buildings, site layout and fences to enhance security. Simple factors can improve security greatly:

- Site buildings a good distance from roads or boundaries. Thieves are more likely to be intercepted if they have a long way to go to reach a building and to get away.
- Keep areas around buildings clear of obstacles and cover as much as possible to make intruders easily visible.
- Ensure that buildings are well-lit, preferably at the building design stage. Site lights to shine out from the building or high enough to illuminate the ground without blinding the guards looking out from the building.
- Provide a store with a substantial lock and door in each building to lock up valuable equipment as a last defence against the thief.
- Install window bars to make it more difficult and time consuming for the thief to break in.
- If a building is to contain especially valuable equipment or instruments, consider incorporating a strong room with a steel door and reinforced ceiling into the building's design, where these items can be locked up overnight or during weekends and holidays.

As a matter of policy, do not allow keys to be taken off site so that workers do not forget keys at home or lose them, causing locks to be changed or cut open.

Workers may have opportunity to make unauthorized copies of the keys. Keeping keys with security also allows security men access to save property in the event of fire.

Fences are only really useful to demarcate boundaries and to keep out casual passers by. Fences are very expensive and will not keep out anyone who really intends to come in.

It is easy to cut a man-sized hole in a fence, and on a long fence, the hole may go undetected. A hole in the fence can imply that:

- intruders have entered the premises,
- intruders have entered the premises, and left,
- intruders intend to enter the premises (especially if the hole is disguised or concealed) at a later time.

In each case, put a concealed watch on the hole, and act according to developments. If possible, allow intruders to enter and then bring in police to make arrests.

Fences can be useful for enclosing a small yard which, if well lit and perhaps with a dog at large inside, is quite secure.

Concrete walls are far more secure than wire fences. Consider walls where high security is required. Visibility is not possible through concrete walls. The entrance is literally the only way in and out. However, concrete walls tend to be unsightly on the landscape.

5 Operations and gate control

Vary your operations and gate control according to individual circumstances and the size of your establishment. Adapt general principles to your needs.

The security shift supervisor usually maintains a station log book, a form of diary in which significant events are recorded against their date and time. The log book record has several uses:

- reference record of past happenings for security personnel and their supervisors;
- information to subsequent shifts about ongoing happenings or circumstances;
- record of posting and deployment of watchmen.

Gate control involves the surveillance and monitoring of the movement of vehicles, employees and visitors to and from the site.

- Keep a gate record of all in-going vehicle registration numbers together with a brief description of loads carried in and out of the site.
- Conduct routine searches of all vehicles leaving the site. Politely look through the windows and request the boot or trunk compartment to be opened.
- Issue out-going vehicles from your own establishment with a trip permit authorizing the journey, signed by a senior staff member. A "Delivery Note" or "Authority to Remove Material" form should accompany goods or loads carried out of the site.
- Receive all visitors to the site and obtain clearance for their visit from the people they wish to visit.

6 Pilferage

Pilferage is a major cause of crop loss in a country with an ailing economy and mass unemployment. Losses due to pilferage can easily exceed losses from pests and diseases, which researchers are trying to reduce by breeding improved varieties or by developing integrated pest management systems. People go into farms and pilfer crops to feed themselves and survive.

Pilferage on a research farm is more serious because it can mean loss of data. An experimental field can be harvested by intruders. All the expense and effort can be fruitless, in some circumstances impossible to repeat. Close interaction between security staff and researchers can help to prevent such losses.

When trials are harvested and data taken, the crop is usually sold to workers, occasionally to outsiders. Specify whatever is sold on receipts with amounts stated. The location of the field and the period during which sales take place must be communicated to security staff. This stops people from harvesting more of the same crop from another field.

Private or personal farm plots of workers should not be allowed on a research farm, so that there is no doubt as to where any crop being carried out of the station came from.

Scientists should inspect their trials regularly. Scientists should report crop disturbance or unauthorized harvest immediately. Security can narrow down when and who might have done it. If it happened over a weekend or overnight, it could even be your own security staff.

If pilfering persists, you may set a trap for the culprits, putting up special surveillance on a field crop about to mature. If available, put indelible marker dyes on hedgerows or branches to rub off on trespassers.

7 Bibliography

Adefuye, B.O. 1995. Pilferage in agriculture and sustainable food production in Nigeria: lessons for developing countries. Pilferage research paper 6. Ogun State University, Ago-Iwoye, Nigeria.

Butler, A.C. 1994. Landscape design on research stations. IITA Research Guide 8. Training Program, International Institute of Tropical Agriculture (IITA), Ibadan, Nigeria. 15 p.

Couper, D.C. 1996. Use of maps for planning research farms. IITA Research Guide 7. Training Program, International Institute of Tropical Agriculture (IITA), Ibadan, Nigeria. 29 p.

● **Suggestions for trainers**

If you use this Research Guide in training ...

Generally:

- **Distribute handouts (including this Research Guide) to trainees one or several days before your presentation, or distribute them at the end of the presentation.**
- **Do not distribute handouts at the beginning of a presentation, otherwise trainees will read instead of listen to you.**
- **Ask trainees not to take notes, but to pay full attention to the training activity. Assure them that your handouts (and this Research Guide) contain all relevant information.**
- **Keep your training activities practical. Reduce theory to the minimum that is necessary to understand the practical exercises.**
- **Use the questions on page 4 (or a selection of questions) for examinations (quizzes, periodical tests, etc.). Allow consultation of handouts and books during examinations.**
- **Promote interaction of trainees. Allow questions, but do not deviate from the subject.**
- **Respect the time allotted.**

specifically:

- Discuss with participants experiences with security at their research stations (15 minutes).
- Present and discuss the major points of this Research Guide (45 minutes). Use slides and other visuals.
- Form groups of 4-5 participants each. Visit a local research station. Ask groups to identify, present, and discuss possibilities for improvement of security.



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The International Institute of Tropical Agriculture (IITA) is an international agricultural research center in the Consultative Group on International Agricultural Research (CGIAR), which is an association of about 50 countries, international and regional organizations, and private foundations. IITA seeks to increase agricultural production in a sustainable way, in order to improve the nutritional status and well-being of people in tropical sub-Saharan Africa. To achieve this goal, IITA conducts research and training, provides information, collects and exchanges germplasm, and encourages transfer of technology, in partnership with African national agricultural research and development programs.

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