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Survey

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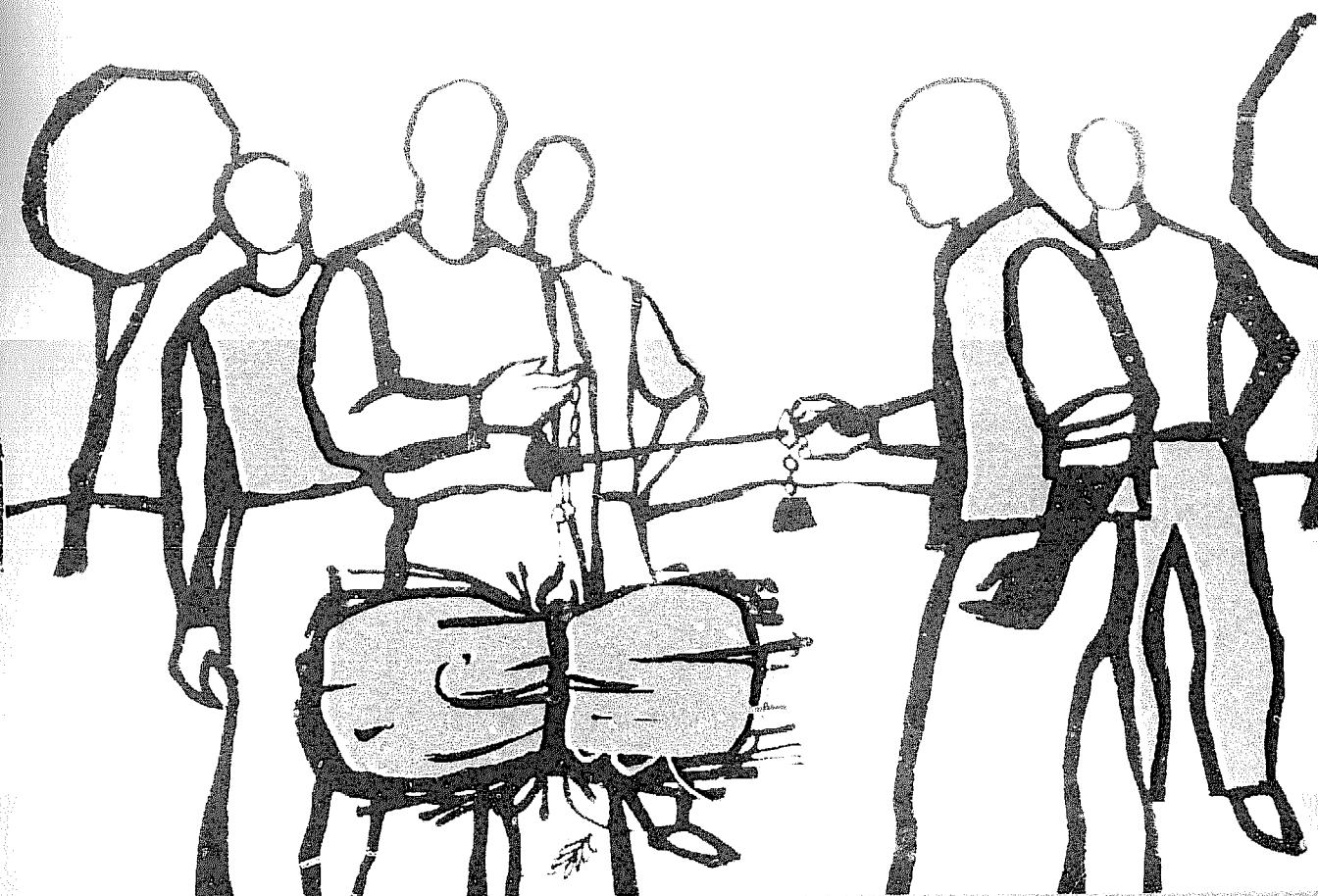
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the farm business survey



BETTER FARMING SERIES

Twenty-six titles have been published in this series, designed as handbooks for a two-year intermediate level agricultural education and training course. They may be purchased as a set or as individual documents.

FIRST YEAR

1. The plant: the living plant; the root
2. The plant: the stem; the buds; the leaves
3. The plant: the flower
4. The soil: how the soil is made up
5. The soil: how to conserve the soil
6. The soil: how to improve the soil
7. Crop farming
8. Animal husbandry: feeding and care of animals
9. Animal husbandry: animal diseases; how animals reproduce

SECOND YEAR

10. The farm business survey
11. Cattle breeding
12. Sheep and goat breeding
13. Keeping chickens
14. Farming with animal power
15. Cereals
16. Roots and tubers
17. Groundnuts
18. Bananas
19. Market gardening
20. Upland rice
21. Wet paddy or swamp rice
22. Cocoa
23. Coffee
24. The oil palm
25. The rubber tree
26. The modern farm business

The farm business survey

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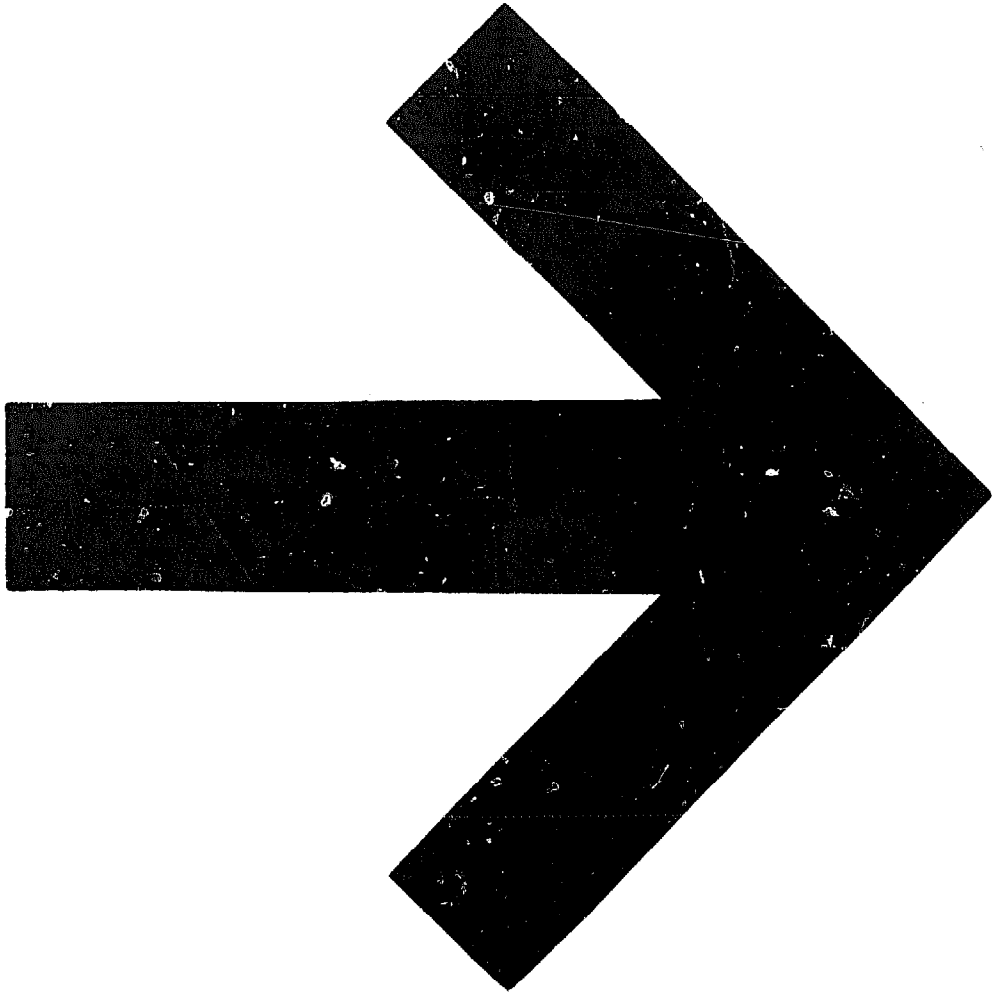
PREFACE

This manual is a translation and adaptation of "L'entreprise agricole (enquête)," published by the Agri-Service-Afrique of the Institut africain pour le développement économique et social (INADES), and forms part of a series of 26 booklets. Grateful acknowledgement is made to the publishers for making available this text, which it is hoped will find widespread use at the intermediate level of agricultural education and training in English-speaking countries.

The original texts were prepared for an African environment and this is naturally reflected in the English version. However, it is expected that many of the manuals of the series — a list of which will be found on the inside front cover — will also be of value for training in many other parts of the world. Adaptations can be made to the text where necessary owing to different climatic and ecological conditions.

Applications for permission to issue this manual in other languages are welcomed. Such applications should be addressed to: Director, Publications Division, Food and Agriculture Organization of the United Nations, Via delle Terme di Caracalla, 00100 Rome, Italy.

The author of this English version is Mr. A.J. Henderson, former Chief of the FAO Editorial Branch.



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PART 1

**Review of
the first-year course**

**Introduction to
the second-year course**

AGRICULTURE IS A TRADE THAT MUST BE LEARNED

Agriculture is the trade of men and women
who farm the land and raise livestock.

The farmer's trade is a difficult one;
it is a trade that demands a great deal of work.

It is a trade which has to be learned,
because nowadays there are many new techniques.

Agricultural extension workers
and agricultural assistants
explain these new techniques
to farmers.

With the help of the Better Farming courses
you can also gain a better knowledge
of farming.

**The farmer's trade is the most important trade
for many African countries.**

It is the farmers who feed
all a country's people.

**Agriculture is the chief wealth
of most African countries.**

For example:

Cotton is the chief resource of Chad;

Groundnuts are the chief resource
of Senegal;

Cocoa is the chief resource of Cameroon;

Coffee is the chief resource
of Ivory Coast.

In almost all African countries
the products sold to foreign countries
are agricultural products.

What did we learn in the first-year course?

You have just finished the first-year course.

**You learned first
about plants and their different parts:**

- **the root** has a very important part to play
(see Booklet No. 1):
 - it holds the plant to the soil;
 - above all, it takes from the soil
the plant's food – mineral salts.
If roots did not exist,
plants could not feed themselves.
They would die.
- **the stem** (see Booklet No. 2):
 - it carries the branches, leaves, flowers and fruits;
 - it moves the raw sap from the root to the leaves.
- **the leaves** (see Booklet No. 2):

The action of the leaves is chiefly to change
the raw sap into elaborated sap.
The raw sap is the mineral salts and water
which the roots have taken from the soil.
The raw sap cannot be used directly
to feed the plant.
The raw sap has to be changed.
It is the leaves which change the raw sap
into elaborated sap.
This is known as vegetable synthesis.
The elaborated sap can feed the plant directly.
- **the flowers** (see Booklet No. 3):

The job of the flowers is to produce fruits.
- **the fruits** (see Booklet No. 3):

Usually we grow plants
to harvest their fruits, such as:
the grains of millet, sorghum, maize,
the berries of coffee, the pods of cocoa,
the fruits of oil palms and coconut palms, bananas,
pineapples, mangoes, papaws.

**After that
you learned about the soil.**

- **How is the soil made up?** (see Booklet No. 4)
The soil is a mixture of sand, clay and silt.
Good soil contains humus.
Humus makes many soils much better,
it helps air and water to circulate better,
and makes the soil richer.

- **The soil must be conserved** (see Booklet No. 5)
by protecting the soil
against flowing water (erosion by water)
against wind (erosion by wind),
and against sun that is too hot.
To do this on sloping fields,
the ploughing should be along contour lines,
and the soil should be covered.

- **Soil fertility must be improved** (see Booklet No. 6)
by applying manure and compost,
by growing green manuring crops,
by the use of fertilizers.
Besides that, water can be brought in (irrigation)
if the ground is too dry;
and water can be taken away (drainage)
if the ground is too wet.

- **The soil must be well worked**
so as to produce more (see Booklet No. 7).
All the jobs on the land must be well done,
and they must be done at the right time.

Then you learned about animals.

If you want to have many fine animals,
you must:

- **feed them well** (see Booklet No. 8):
If the animals do not get enough to eat,
they do not grow,
they do not gain weight.
They produce little milk.
They will yield little meat
when they are slaughtered.

- **house them well** (see Booklet No. 8):
Animals need a shelter in which to sleep
and rest protected from rain and sun.

- **protect them against diseases** (see Booklet No. 9):
wounds must be treated,
parasites must be removed from animals,
animals must be vaccinated.

- **make good animals breed** (see Booklet No. 9):
If you choose males of good quality
and females of good quality,
you will have young ones of good quality.
Selective breeding will quickly improve your herd.

Why study the Better Farming courses?

What are the Better Farming courses for?

With the Better Farming courses
you will learn more about agriculture.
They teach farmers what they must do
to get better crops and to raise better animals.

For extension workers,
agricultural assistants
and community leaders
the Better Farming courses provide a refresher course
on what they learned in their training.

Many students write to ask:

“What are Better Farming courses for?
Could I get a job as an extension worker
or agricultural assistant?
Could I get a government job with your certificate? ”

We always reply:

**the aim of the Better Farming courses
is not to give you a government job.**

In every country

there are examinations for government jobs.
But our purpose
is not to get people into government service.

**Our aim is to give a better knowledge of their trade
to farmers,
agricultural extension workers
and agricultural assistants.**

Why go on with the Better Farming courses?

I know that the Better Farming courses
are not recognized by the government
and administration of my country
as an official certificate.

Doing a Better Farming course
will not help me to get a government job.
That is not its purpose.

I do the course
simply in order to learn my job better.

If I'm a farmer,
or working with my father or uncle,
I shall learn how to farm well.
I shall use modern methods,
I shall get good yields
and I shall earn more money.

So I shall have extra money
to feed my family well,
make a better house,
and improve the village along with the other farmers.

If I am an extension worker
or an agricultural assistant

I shall learn how to give simple advice to farmers.
I shall become a good community leader
and be useful to the farmers and to my country.

What shall we learn in the second-year course?

During the first year we studied:

plants,
the soil and the tools for working the soil,
animals.

Why?

A farmer uses plants, the earth,
tools and animals to produce.

The farmer and those who work with him,
the plants, the earth, the tools, and the animals,
are all part of a whole
which is called **the farm business**.

Each farmer in savanna country,
each planter in forest country,
uses different means to produce and to earn money.

These means are:

- his labour and the labour of those with him,
- animals,
- land – his fields or his plantations,
- plants,
- tools.

All that (**the labour, animals, land, plants, tools**)
are the means of production
of the farm business.

The farmer uses all these means of production to produce:

- vegetable products,
such as millet, maize, yams, cassava,
coffee, cocoa, oil palm fruits, cotton,
groundnuts, okra, pimentoes, tomatoes, beans.
- animal products,
such as beef, mutton,
milk, butter,
eggs.

**In the second-year course
there are nine booklets to study,
and nine question papers to answer.**

- **Two booklets are obligatory,
and should be studied by everyone.**

These are the first,
on the farm business,
and the last,
on modern farming.

- **The other seven booklets are optional.**

Each student should choose
out of the booklets prepared
seven booklets on crops and animal husbandry.
He must choose at least
two booklets on animal husbandry.

There are now four booklets on animal husbandry:

- Cattle breeding
- Sheep and goat breeding
- Keeping chickens
- Farming with animal power.

There are now 11 booklets on crops:

- Groundnuts
- Wet paddy or swamp-rice
- Upland rice
- Cereals (millet, maize sorghum)
- Roots and tubers
(cassava, yams, sweet potatoes, tania, taro)
- Market gardening
- Coffee
- Cocoa
- The oil palm
- Bananas
- The rubber tree

If a student chooses two booklets on animal husbandry,
he has to choose five booklets on crops.

If a student chooses three booklets on animal husbandry,
he has to choose four booklets on crops.

If a student chooses four booklets on animal husbandry,
he has to choose three booklets on crops.

For example:

Mamadou is a farmer in savanna country;
he has cattle and sheep;
he uses animal power for tilling.

Mamadou chooses:

three booklets on animal husbandry:
cattle,
sheep and goats,
farming with animal power;

four booklets on crops:
cereals,
roots and tubers,
groundnuts,
market gardening.

PART 2

The farm business survey

THE FARM BUSINESS SURVEY

The study programme
for the second-year course
is called:

**the farm business
and its animal and vegetable production.**

We shall deal more particularly with the farm business
in this first booklet
of the second-year course
and in the last booklet of the course.

In the other booklets
we shall deal with the animal and vegetable production
of a farm.

**In this first booklet,
we ask you to make a farm business survey.**

What does this mean — “make a survey”?

**Making a survey of a farm business
means taking stock of a farm
and stating what are its means of production.**

For instance:

- How many workers are there?
- How many fields are farmed?
What is the area of these fields?
What crops are grown on them?
- What animals belong to the farmer?
How many are there?
Do some animals work in the fields?
- What tools are used?
- What buildings are there?

Why make a farm business survey?

Many students of the Better Farming courses are **farmers** who work on a farm. Sometimes this business belongs to them, and sometimes it belongs to their father, or brother or uncle.

Each Better Farming student should have a good knowledge of the farm on which he works.

If he knows it well, he will be able to improve it, for he will have a good knowledge of the means of production used by this farm business.

Many students of the Better Farming courses are **agricultural extension workers**, or **agricultural assistants** or **community leaders**.

Their aim is to teach farmers to farm the land better, to breed better animals.

For them too it is necessary to have a good knowledge of some farm.

They will learn how to look carefully at a farm business.

They will see better all the farmers' difficulties.

They will be able to advise them better, and help them better in their everyday work.

How to make a farm business survey

- 1. If you own a farm,
or if you work with your father,
or brother or uncle,
choose the farm business
in which you work.**

Read the survey questionnaire.
At each question,
note how things are
on the farm where you work.

In answering the question,
do not invent an answer
which will please the enumerator or supervisor.
Say exactly what happens
on the farm.

For example:

You are asked if you put manure on the fields.
If on your farm
the animals are not shut in,
you cannot make manure.
So you should not say
that you put manure on the fields.

For example:

You are asked if you apply fertilizer
to your plantation.
If you do not apply fertilizer,
you must not say that you do.

The farm must be described
exactly as it is.
Answers must not be invented.

**2. If you do not own a farm,
or if you do not work on a farm,
choose a farm that you know well.**

If you are an agricultural extension worker
or agricultural assistant,
choose a farm which you regularly visit
to advise the farmer.

Ask the farmer to give you the necessary information.
Make a note on paper of all this information
and then fill in the questionnaire of the survey.

If you have some other job,
such as that of schoolteacher,
look for a farmer or planter
in your neighbourhood
who will give you the information you need.
You can also choose a farm in your native village,
or your old father's farm,
or that of your uncle
or one of your cousins.
Ask them questions,
make a note of the answers to these questions.

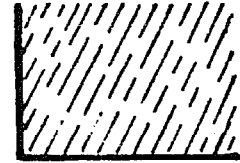
Go and look at the fields yourself.
Measure the area of each field.
Weigh the traditional measures,
such as a cask and a calabash (gourd)
to find out how many kilogrammes of millet
a cask or a calabash contains.

A farmer should know the size of his fields

A modern farmer
should have **regular-shaped fields,**
with square corners.
That is, corners that make **right angles.**



These two corners are not square.
They do not make right angles.



A square corner.
It makes a right angle.

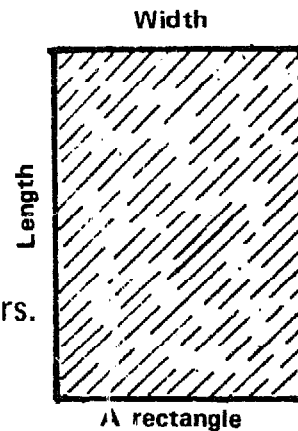
A corner of your booklet
is a square corner
because it forms a right angle.

Farmers should nowadays make all their fields
with square corners.

Most modern fields
have the shape of a **rectangle.**
A rectangle is a field
with 4 sides and 4 square corners.
Your booklet is a rectangle,
because it has 4 sides and 4 square corners.

The 2 bigger sides
are called the **length.**

The 2 smaller sides
are called the **width.**



When the **length** and the **width** are the same,
the rectangle is called a **square.**

A good farmer should know
the **length** and **width** of his fields.
To know the **length** and **width** of a field
the field must be **measured.**

Measuring the **length** or **width** of a field
means knowing
how many metres there are in this **length** or **width.**

HOW TO RECKON THE LENGTH AND WIDTH OF A FIELD

You measure the length or width of a field in **metres**.

A metre is a **unit of length**.

At shops you can buy a wooden folding rule, or a tape which measures exactly one metre. But you can make a metre measure for yourself. Take a stick that is quite straight, or a piece of string or rope. Take five times the length of your booklet (the bigger side of the booklet) and you will have a length of about one metre (1.05 metres exactly), because your booklet is 21 centimetres long, that is 0.21 metre ($0.21 \times 5 = 1.05$ m). To get just one metre, take off the stick, or string or rope, the length of your thumb.

**With this stick, string or rope,
you can measure
the length and width of your field.**

As these distances are often very long, the length or width of fields is often measured with a **rope or chain of 10 metres**.

(This rope or chain is called a **decametre**).

If you have a rope long enough, you can yourself make a decametre.

Take the metre that you made first and put it along the rope ten times.

That will give you a decametre.

It will enable you to measure much more easily the length and width of your field.

The extension workers or agricultural assistants sometimes have decametres.

You can ask them to measure your fields.

HOW TO RECKON THE AREA OF A FIELD

The area of a field is measured
in square metres (m²).

To reckon the area of a field
that has the shape of a rectangle,
multiply the length in metres by the width in metres.

$$\text{Area of a field} = \text{length} \times \text{width}$$

Example: *I have a field which is 54 metres long
and 22 metres wide;
the area of the field is
54 m X 22 m = 1 188 m².*
*I have another field which is 187 m long
and 84 m wide;
the area of the field is
187 m x 84 m = 15 708 m².*
*I have a garden which is 21 m long
and 8 m wide;
the area of my garden is
21 m X 8 m = 168 m².*

Usually, to measure the area of a field,
we use another unit of measurement
which is more useful than m².

This is the **hectare (ha)**.

A hectare equals 10 000 m².

It is the area of a square field,
the four sides of which are each 100 metres long.

**How to change into hectares
the area of a field given in m².**

You simply put in a decimal point four places back, thus:

$$15\,708\text{ m}^2 = 1.5708\text{ ha}$$

$$1\,188\text{ m}^2 = 0.1188\text{ ha}$$

$$168\text{ m}^2 = 0.0168\text{ ha}$$

How to measure the weight of a harvest

Often when you ask a farmer
how much he has harvested,
the farmer says:

"I harvested 22 casks of rice,"
or "I harvested 18 baskets of cotton,"
or "I harvested 5 sacks of coffee."

Usually farmers do not use
the same units of measurement
to measure the amount they have harvested.
So it is difficult to compare the harvest of one farmer
with the harvest of another farmer.

To do that, it is better
to measure the amount harvested in kilogrammes (kg).

You can measure the weight of a harvest in kilogrammes
on scales or on a weighing machine.

The dealers or trading companies
who buy agricultural produce
have scales
to weigh the harvest of each farmer.

But sometimes the dealers
cheat the farmers
in weighing their produce.

**So it is often worth while
for all the farmers of a village
to have their own scales.**

Then each farmer can know
exactly how much he has harvested
from each field of cotton or millet or cocoa.
When he sells he cannot be cheated by the dealer,
because he knows the weight
of the cotton, millet or cocoa
that he is selling.

If you have not got a pair of scales,
you can get someone to weigh
the rice contained in one cask, let us say 8 kg.
Then, if you have harvested 22 casks, that makes about
 $8 \text{ kg} \times 22 = 176 \text{ kg}.$

How to reckon the yield per hectare

To find out if the harvest has been good, you often need to reckon how many kilogrammes you would have harvested if you had a field of one hectare.

When you have worked out this figure, you have reckoned the **yield per hectare**.

Example:

I have a field of groundnuts that is 54 metres long and 22 metres wide. The area is: $54\text{ m} \times 22\text{ m} = 1\,188\text{ m}^2$. I harvested 94 kg of groundnuts from this field. What is the yield per hectare?

To work this out, I use what is called the rule of three, thus:

From an area of $1\,188\text{ m}^2$ I harvested 94 kg

For 1 m^2 I would have harvested $\frac{94\text{ kg}}{1\,188}$

For 1 ha (or $10\,000\text{ m}^2$) I would have harvested

$$\frac{94 \times 10\,000}{1\,188} = 791\text{ kg}$$

Another example:

I have a field of maize which is 165 metres long and 74 metres wide. Its area is $165\text{ m} \times 74\text{ m} = 12\,210\text{ m}^2$. I harvested 924 kg of maize on this field. What is the yield per hectare?

I use the rule of three:

On an area of $12\,210\text{ m}^2$ I harvested 924 kg

On 1 m^2 I would have harvested $\frac{924}{12\,210}$

On $10\,000\text{ m}^2$ (or 1 ha) I would have harvested

$$\frac{924 \times 10\,000}{12\,210} = 756.7\text{ kg}$$

How to reckon receipts

The receipts
are the money a farmer gets
for selling his produce.

Mamadou is a farmer
who grows: 0.8 ha of cotton
0.5 ha of groundnuts
0.6 ha of millet
0.4 ha of rice

He weighs all his harvests.
He has harvested: 640 kg cotton
450 kg of groundnuts
420 kg of millet
360 kg of rice

He keeps, to feed his family:
100 kg of groundnuts
360 kg of millet
150 kg of rice

He sells: 640 kg of cotton at 28 F:	28×640	= 17 920 F
350 kg of groundnuts at 17 F:	17×350	= 5 950 F
60 kg of millet at 15 F:	15×60	= 900 F
210 kg of rice at 20 F:	20×210	= 4 200 F

So the farmer's receipts are:

cotton	17 920
groundnuts	5 950
millet	900
rice	<u>4 200</u>
	28 970 francs

But the farmer has perhaps sold
other things besides his harvests.

Perhaps he has sold an ox or a calf,
some sheep,
chickens, or eggs.

Perhaps he sold some okra, pimentoes or tomatoes.

All the other products sold must be added
in order to get the farmer's total receipts.

EXPLANATIONS TO HELP IN ANSWERING THE QUESTIONNAIRE

The questionnaire for this survey is long.

There are five parts.

Each of these parts deals with

one of the **means of production** of the farm business:

- **Farm labour** (page 2 of questionnaire)
- **Farm animals** (page 3 of questionnaire)
- **Farm land and products:** garden, plantations, fields, pasture (pages 4 and 5 of questionnaire)
- **Farm buildings** (page 6 of questionnaire)
- **Farm installations and tools** (page 7 of questionnaire)

In the following pages

we give some explanations

so that you can answer the questions better.

Read these pages several times,

so that you will understand better

what you are asked.

Think well before answering.

Take good note of what is done on the farm.

Do not invent answers.

Say exactly what there is on the farm.

1. FARM LABOUR

First of all it is important to say
to whom the farm belongs,
who is head of the business.

You must also say
if you work on the farm.

Then it is important to know
how many people work
all the year round on the farm.
Include only those who
remain in the village **all the year**,
and who
work on the farm **all the year**.

In the following question
you can say
if some people come **from time to time** to work,
for example, students during their holidays,
brothers, or cousins, or friends.

2. FARM ANIMALS

There are animals
on almost all farms.

First of all you are asked to say
what animals live on the farm.

If there are cattle (cows, oxen)
you answer "yes" after "Cattle,"
and then you say
how many males, females and calves there are.
If there are no cattle
you write "no" after "Cattle."

You do the same thing
with the other animals:
sheep, goats, pigs, chickens.
If there are other animals
which are not listed in the questionnaire,
such as donkeys, horses, camels, rabbits, guinea fowl,
write the name of the animal
under the other names of animals,
then say how many are
males, females, young ones.

Next you must say
what these animals are used for.
Are they raised
for meat, or milk or eggs?
Are they raised
for sale to earn money?
Are they raised
for farm work such as ploughing, and for transport?

3. FARM LAND AND PRODUCTS

The two pages on land
are divided into four parts:

1. Garden
2. Tree plantations
3. Fields
4. Pasture

1. Garden

On the farm there is perhaps a place
where, for example, pimentoes, or tomatoes,
or okra or onions are grown.

Name all the plants grown in this garden.

Say also if the farmer sells vegetables
grown in the garden.

If there is no garden, answer "no"
and go on to the next question.

2. Tree plantations

Plantations are land where trees are grown.

In the questionnaire
each rectangle represents one plantation.

Fill in as many rectangles
as there are plantations.

In the forest regions,
the plantations are chiefly of coffee trees, cocoa trees,
oil palms, coconut palms, bananas.

In savanna country
the plantations are chiefly of fruit trees
such as mango, orange, lemon or papaw trees.

If the plantation is very small,
for example, it has three or four mango trees,
give only the number of trees,
do not give the area.

If the plantation is very big,
for example, coffee trees,
give only the area of the plantation
and not the number of trees.

3. Fields

In the questionnaire
each rectangle represents one field.
Fill in as many rectangles
as there are fields.

For example, Yeo has a field of cotton,
a field of millet,
a field of groundnuts.
Yeo has only three fields,
so he fills in only three rectangles.

Field of cotton measuring 0.7 ha Harvest 560 kg Sold 560 kg Receipts 16 800 f	Field of millet measuring 0.8 ha Harvest 640 kg Sold kg Receipts f	Field of groundnuts measuring 0.5 ha Harvest 400 kg Sold 300 kg Receipts 7 500 f
Field of measuring ha Harvest kg Sold kg Receipts	Field of measuring ha Harvest kg Sold kg Receipts	Field of measuring ha Harvest kg Sold kg Receipts

When a farmer has not sold a product,
for example, millet,
fill in only the first three lines
of each rectangle;
do not fill in the last two lines.

4. Pasture

Are there places
where fodder crops for animals are grown,
for example, a seeded fallow?

4. FARM BUILDINGS

A modern farm
should have special buildings.

There may be three kinds of buildings:

1. Buildings to house the animals:

- a cow shed for cattle (cows, oxen);
- a shed for sheep or goats;
- a pigsty for pigs;
- a henhouse for poultry (chickens, guinea fowl);
- a stable for donkeys or horses.

2. Buildings for tools:

- a shed for implements, such as: hoe, machete, sickle, plough, mechanical cultivator, seed drill, rice thresher, coffee pulping machine;
- a store for fertilizers and pesticides.

3. Buildings for the harvests:

- a granary for storing millet, rice, groundnuts;
- a hut for storing cassava or yams;
- a shelter for drying coffee or cocoa.

Take note

whether there are such buildings on the farm.

Do not invent your answers.

If there are no buildings of these kinds,
answer "no" to the questions.

5. FARM INSTALLATIONS AND TOOLS

First of all, say

whether the farmer has made any **installations** on his farm,
such as digging a pit for making compost,
or arranging a place for making manure,
or digging a well to get water,
or diggir.g channels to make an irrigated rice field.

Do not invent answers
if there are no such installations.

Answer "no" to the questions.

Next, list

the different tools that belong to the farmer.

List first the **hand tools**,
such as: hoe, machete, knife, sickle,
spade, dibber, rake.

Then list the **tools drawn by animals**
(if the farmer works with animal power),
such as: plough, cart, harrow, marker,
cultivator, groundnut lifting plough.

Finally, list the **other machines**,
such as: rice threshing machine,
coffee pulping machine,
pesticide applicators,
millet grinder,
scales for weighing produce.

PART 3

Farm business survey questionnaire

FARM BUSINESS SURVEY QUESTIONNAIRE

This questionnaire

is different from the question papers
of the first-year courses.

You are not asked to answer questions
about what you have learned in the course.

You are asked to get a good knowledge of a farm.

If you are a farmer yourself,

you work in the fields;

you have animals

and perhaps buildings for them;

you have tools.

The farm workers, the animals, the fields,

the buildings, the tools make up

what is called a farm business.

The course has explained this.

Read carefully:

You are now going to make us familiar with your farm.

If you do not have a farm yourself,

take your father's farm,

or your brother's,

or the farm of someone else.

In answering the questionnaire,

take only one farm.

HOW TO ANSWER THE QUESTIONNAIRE

- **Be sure you understand each question.**
This booklet explains how to answer the questions.
Reread pages 24 to 30.
- **Next, take good note
of what there really is on the farm.**
As asked, you must count and measure.
Then write your answer.
- **If the question speaks
of something which does not exist on the farm,
answer "no".**

1. FARM LABOUR

The farm consists in the first place of those who work on it.

There is whoever has the land and the animals; he gives work and food to the family and he keeps the harvest.

There are also those who work for him on the farm.

Answer the following questions:

- In what village does the farm lie?

.....

- Who does the farm belong to?

Is it yourself?

Is it someone in your family?

Is it some other person?

- Do you work on the farm yourself?

.....

- Count how many people work all the time on the farm.

How many men?

How many women?

How many unmarried youngsters?

How many paid workers?

Total number of workers

- Are there other workers who come at certain times?

.....

All these workers make the success of the business.
They bring **labour** to the business.

2. FARM ANIMALS

The farm business also includes the animals.
Take a good look and count them.

There are **livestock** (cattle, goats, sheep, pigs, donkeys, horses, camels, etc.).

There are **farmyard animals** (chickens, ducks, guinea fowl, rabbits).

On the farm of Mr. _____ there are:

Which animals?	How many males?	How many females?	How many young?
Cattle _____	_____	_____	_____
Sheep _____	_____	_____	_____
Goats _____	_____	_____	_____
Pigs _____	_____	_____	_____
Chickens _____	_____	_____	_____

● Are these animals raised for food for people (meat, milk, eggs)? If so, which?

● Are these animals raised for sale, to earn money? _____

This year, was any money earned from the animals? _____

How much? Reckon as follows:

Sale of animals	+	sale of milk	+	sale of eggs	=	total
_____	+	_____	+	_____	=	_____

● Are some animals used for farm work?

● Is food bought for the animals?

● Are medicines bought for the animals?

**Animals are wealth: they are
the animal capital of the business**

3. FARM LAND AND PRODUCTS

The farm business also includes the cultivated land.

Let us see:

Mr. _____ and his wife may have a garden.

They may have tree plantations.

They grow crops for the family food, and other crops to sell.

They may also have pasture for feeding animals.

1. The garden

- Has Mr. _____ a garden? _____
(If not, do not answer this question. Go on to the following question about tree plantations.)
- What is grown in the garden?

- Are any vegetables sold? Which?

- If yes, how much was earned in a year?

2. Tree plantations

Are there any plantations or fruit trees?

Each rectangle below represents one plantation or a group of trees. Write in the rectangle the answers to the following questions:

- What sort of plantation? (Coffee ____ oil palms ____ mangoes ____ etc.)
- What is the area of the plantation?
- How many trees are there?
- How many kilogrammes were harvested in a year?
- If anything was sold, how much was earned? ("Receipts.....")

Plantation of	Plantation of	Plantation of
measuring ha	measuring ha	measuring ha
No. of trees	No. of trees	No. of trees
Harvest kg	Harvest kg	Harvest kg
Receipts.....	Receipts	Receipts.....

3. Fields

- How many fields are there in the farm?

.....

- Look at each field. Each rectangle below represents one field. Write in the rectangles and say:

- What crop is grown in the field: "Field of"
- What is the area of this field: "measuring"
- How many kilogrammes were harvested in this field: "Harvest"
- If the harvest was sold, or part of the harvest, how much was earned? ("Receipts")

Field of measuring ha Harvest Sold Receipts	Field of measuring ha Harvest Sold Receipts	Field of measuring ha Harvest Sold Receipts
Field of measuring ha Harvest Sold Receipts	Field of measuring ha Harvest Sold Receipts	Field of measuring ha Harvest Sold Receipts

Which of the products harvested in the fields and plantations were used for human food?

.....
.....

Which were used for animal food?

.....
.....

Which were sold to earn money?

.....
.....

4. Fodder crops for animals: pasture

Are fodder crops for animals grown?

Are there places kept for pasture?

The garden, plantations and fields contribute to production:
they are the **land capital** of the business.

4. FARM BUILDINGS

The farm business also includes buildings. They are used for housing animals, for storing tools. Perhaps there are barns or paddocks.

Look carefully and do not forget anything.

- **At night where do the animals sleep?** Include the livestock and the farmyard animals.

In the farm house? Which animals?

In a shelter? Which?

In the bush? Which?

In housing made for them?

- **How many buildings are there for the animals? Which?**

.....
.....

- **What are the walls of these buildings made of? And the roof?**

.....
.....

- **What is to be seen inside these buildings?**

.....
.....

- **Is there a paddock for the animals in the daytime? For which animals?**

.....
.....

- **How is the paddock made? What is to be seen in it?**

.....
.....

- **Is there a special place for storing working materials such as tools, fertilizers, pesticides? What place is there?**

.....
.....

- **How many granaries are there for storing the harvest?**

.....
.....

Buildings contribute to production.
They are also part of the farm capital.

5. FARM INSTALLATIONS AND TOOLS

To produce more, Mr. _____ has maybe made some **improvements** to his land by digging ditches or making little channels, or by doing other things.

In working, he uses **tools**. Maybe he has built some installations.

These installations and tools are part of the business.

Take a good look.

Installations: is there:

a pit for compost? _____ a place for manure? _____

a pit for silage? _____ a store of hay or oil cake? _____

a well near the house and garden? _____

What is there for storing water? _____

What arrangements have been made to bring water to the fields or garden? _____

What installations, such as a dryer or oven, etc., are there for drying or treating harvest products? _____

What tools are used in production?

Hand tools

Animal-drawn tools

Modern machines

Pesticides and fertilizers: does the farmer buy fertilizers?

For what crops? _____

Installations and tools contribute to production:
they are the **technical capital** of the business.

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