

Multiple Cropping

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Definition

Growing of more crops in a year is called multiple cropping.

Mixed cropping is also a multiple cropping.

e.g. Aus+Aman.

Kinds of multiple cropping

Multiple cropping are mainly two kinds-

1. Simultaneously cropping
2. Sequential cropping

1. Simultaneously cropping

Growing of more than one crop on a land during a year by maximum utilization of time and space is called simultaneously cropping

Simultaneously cropping is of four types:

- a. Mixed intercropping
- b. Relay cropping
- c. Row intercropping
- d. Strip intercropping

a. Mixed intercropping:

In this process more than one crop are mixed together and sown in broadcast method. Seeds are not sown in line. Different crop seeds may be sown together but in some cases little interval can be maintained.

- e.g. B. Aus+ B. Aman
B. Aus + Sesame
Mustard + Lentil/Grasspea/Gram

In case of mixed intercropping one crop is harvested early and then second crops are grown.

b. Relay cropping:

Relay intercropping is like as relay race with a second crop being planted as soon as the first crop ran its course. In this case when first crop reaches its maturity then second crop been planted.

- e.g. When T. Aman reaches its maturity Grasspea seeds are sown.
When B. Aman reaches its maturity Grasspea /Niger are sown.

In this method the sowing/planting time is different for different crops and big gap oriented.

c. Row intercropping:

In this method both sole and intercrops are sown at a time or maintain little interval. Main crops are sown in line, but intercrops are sown in line or in between two rows of sole crops.



d. Strip intercropping:

In hilly area lands are differentiated into number of strip mainly 15-20 meters space area maintained between the strips. One strip used for one crop.

e.g. One strip for pineapple and another strip for lemon cultivation.

2. Sequential cropping:

After harvesting of one crop than second crop is planted / sown

Sequential cropping re of four kinds-

- a. Double cropping
- b. Triple cropping
- c. Quadruple cropping
- d. Ratoon cropping

a. Double cropping:

Sequentially growing of two crops in a year in a land one after another is called double cropping.

e.g. B. Aman + Sesame
Jute + T. Aman

b. Triple cropping:

Sequentially growing of three crops in a year in a land one after another is called triple cropping.

e.g; Aus rice + T. Aman + Mustard
Jute + T. Aman + Maize/Wheat

c. Quadruple cropping:

Sequentially growing of four crops in a year in a land one after another is called quadruple cropping.

e.g; Maize + Dhaincha + T. Aman + Red Amaranth
Green Amaranth + Dhaincha + T. Aman + Cowpea

d. Ratoon cropping:

In this method after harvest of first crop lower part of plant allowed to develop sucker or little sucker or tillers.

e.g; Sugarcane, Rice (BR 3), Pineapple, Banana, Cabbage, Spinach.

Advantages of ratoon cropping

- Re-plantation is not needed
- Production cost is low
- Less time consuming

Disadvantages of ratoon cropping

- Low yield
- Infestation of insects and pests
- Soil becomes compact.

Advantages of multiple cropping

- Increase the overall income. When crops are grown individually, individual crops may give better yield. But when crops are grown together individual yields of crops reduces but total yield are higher.
- Risk of growing one crop may overcome.
- Weed infestation become less.
- Insects and diseases infestation become less.
- Proper utilization of fertilizers. In our country about 25% nitrogen is utilized by crops, 75% are lost by evaporation and leaching. Growing of different crops together this problem can be



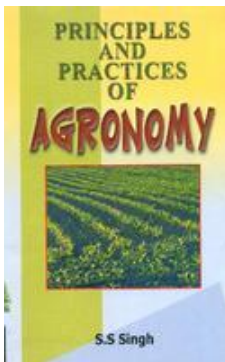
overcome a little extent. When legume crops are growing together the crops may be beneficial.

- Advantages of having different food.
- It increases the intensity of cropping.
- Due to intensive cropping the poor farmers can increase their income.
- Development of self reliance.
- Employment of manpower/labor becomes wider.
- Expansion of industrial and marketing system.

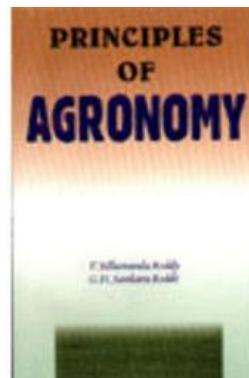
Disadvantages of multiple cropping

- It may cause some problem to mechanization.
- Not effective in seed production.
- It may cause some problem when crops are not compatible.
- Climate may be favorable.
- Infestation of insects and diseases may occur.
- Intercultural operation is complex.
- Fertility reduces.

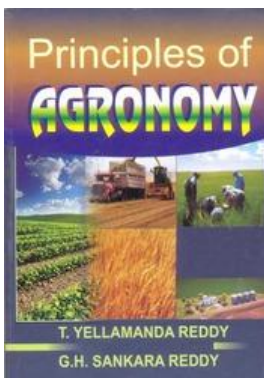
Further Readings:



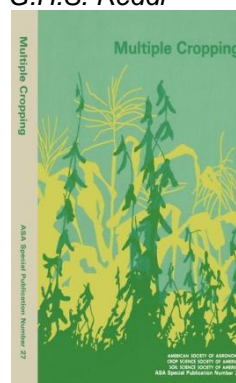
Principles & Practices of Agronomy
S.S. Singh



Principles of Agronomy
T.Y. Reddy
G.H.S. Reddi



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G.H. Sankara Reddy



Multiple Cropping
ASA Special Publication
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