

Rice Straw

Utilities

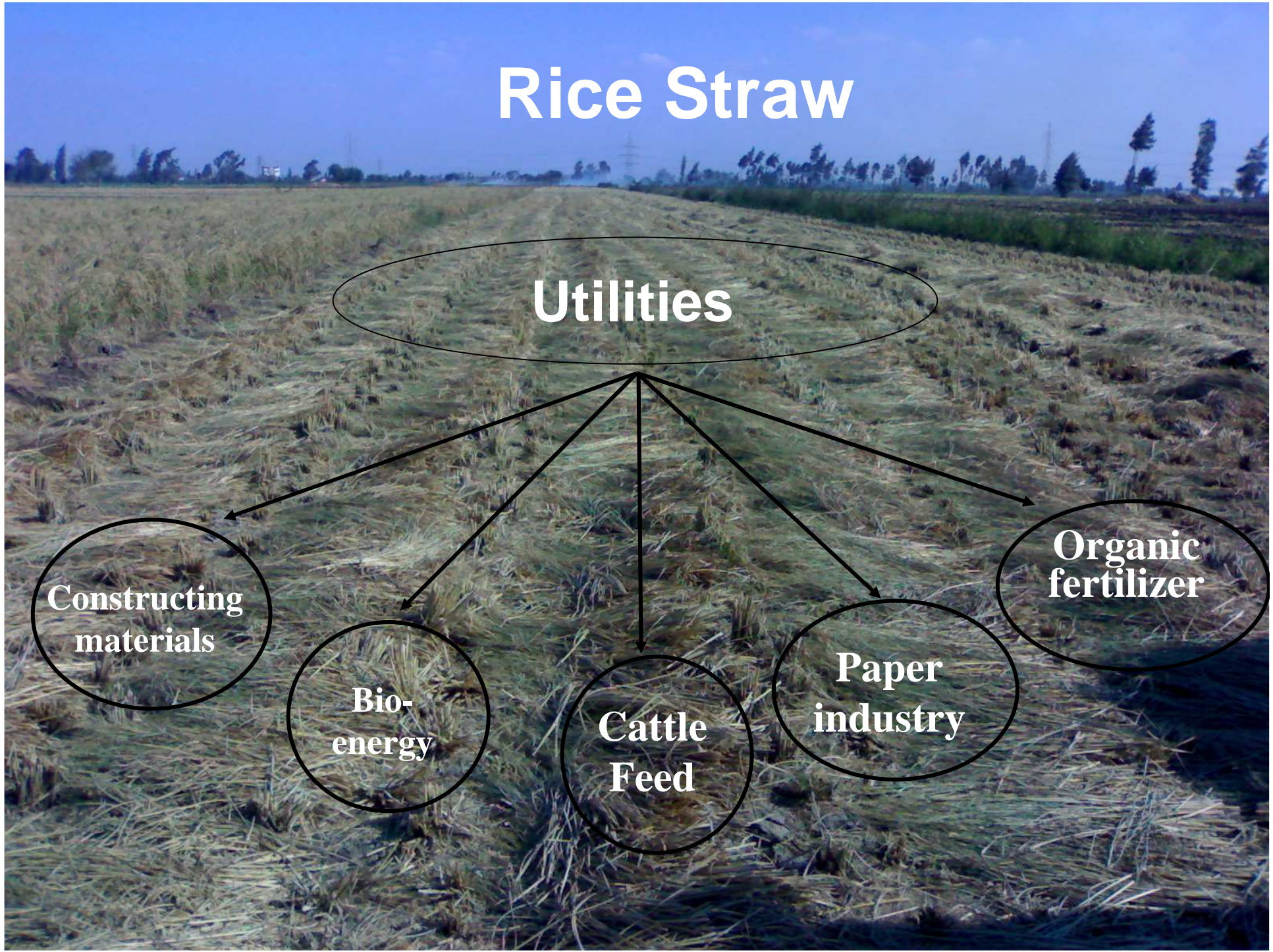
Constructing
materials

Bio-
energy

Cattle
Feed

Paper
industry

Organic
fertilizer



**The problems of re-use the rice straw
are the collection and the
transportation**

**The rice straw collection depends on the
harvesting technique,.....**

**- Manual harvesting: between 10-15% of the
cultivated area**

**- Automated Harvesting: between 85-90% of
the cultivated area**

Rice harvesting

Automated harvesting

Manual harvesting



Rice straw distribution

Cover the whole area



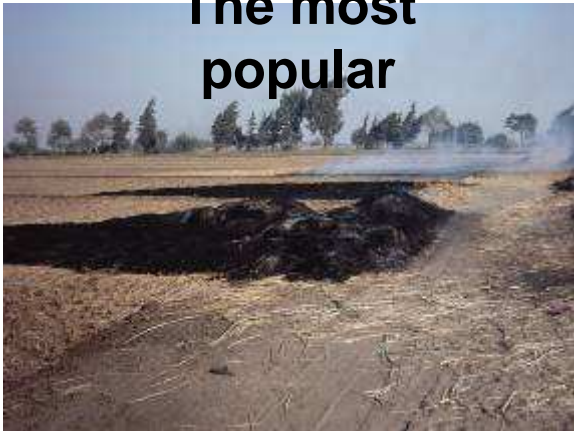
In piles in the field



How to get rid of the straw after manual harvesting

Burn it

The most popular



in bales ... to store it in open places



Store it in closed places



How to get rid of the straw after automated harvesting

Burn it



Baling



معدات تم تطويرها واستخدامها في الدراسة:

2- Mixing machine (straw + enzymes + microorganisms*)



*Microorganisms used:
Pseudomonas , Trichoderma spp, -
Rhiyopus spp Serratia and -

1- Straw cutting machine



Studying parameters

- 1- The straw distribution after harvesting
- 2- length of the straw after cutting
- 3- Distribution of cut straw in tillage section
- 4- Rice straw hydrolysis
- 5- Effect of rice straw on the soil anions and cations
- 6- effect of addition on the productivity

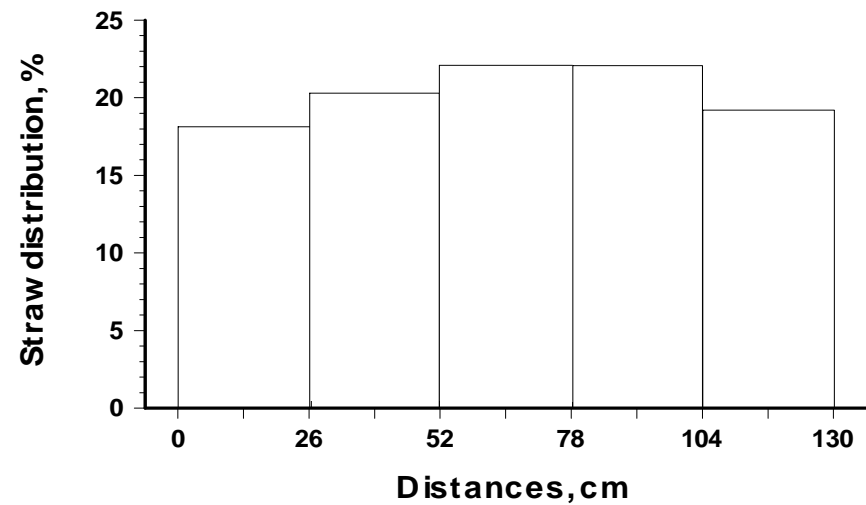
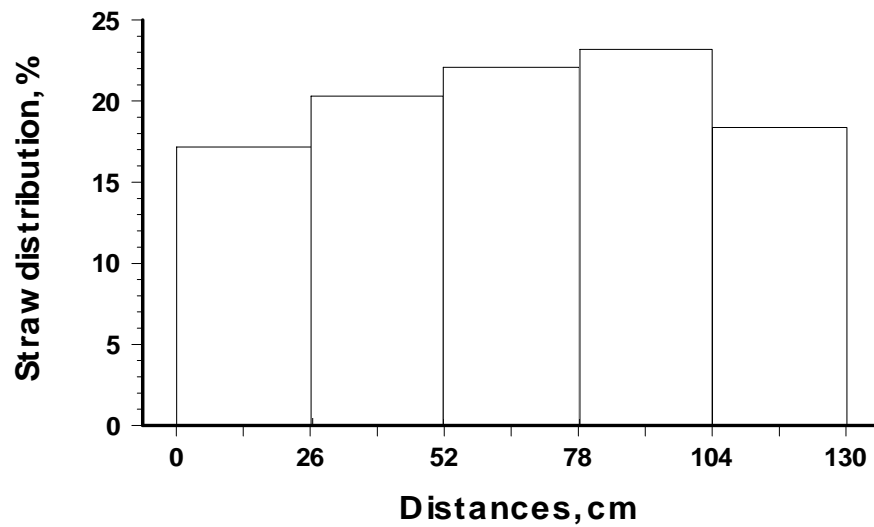
Results

The straw distribution after harvesting

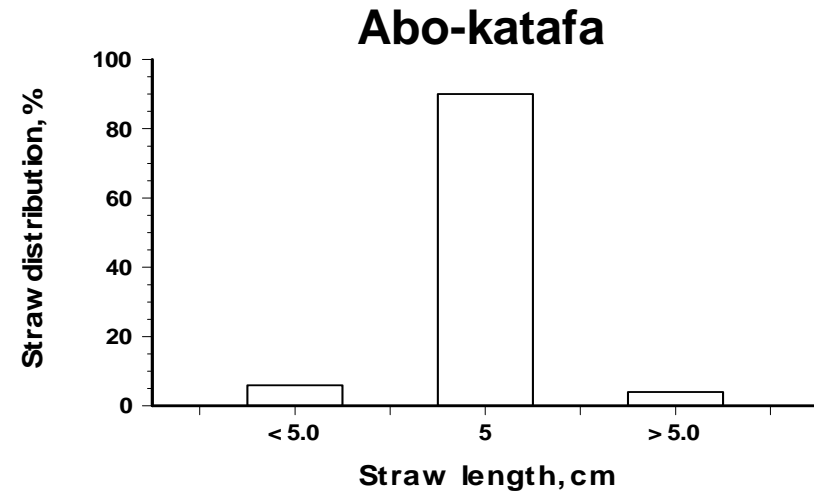
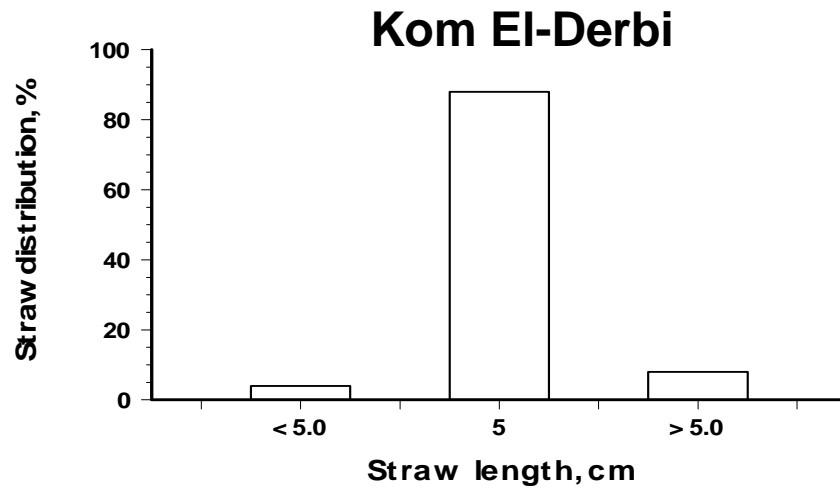
Wet straw cutting



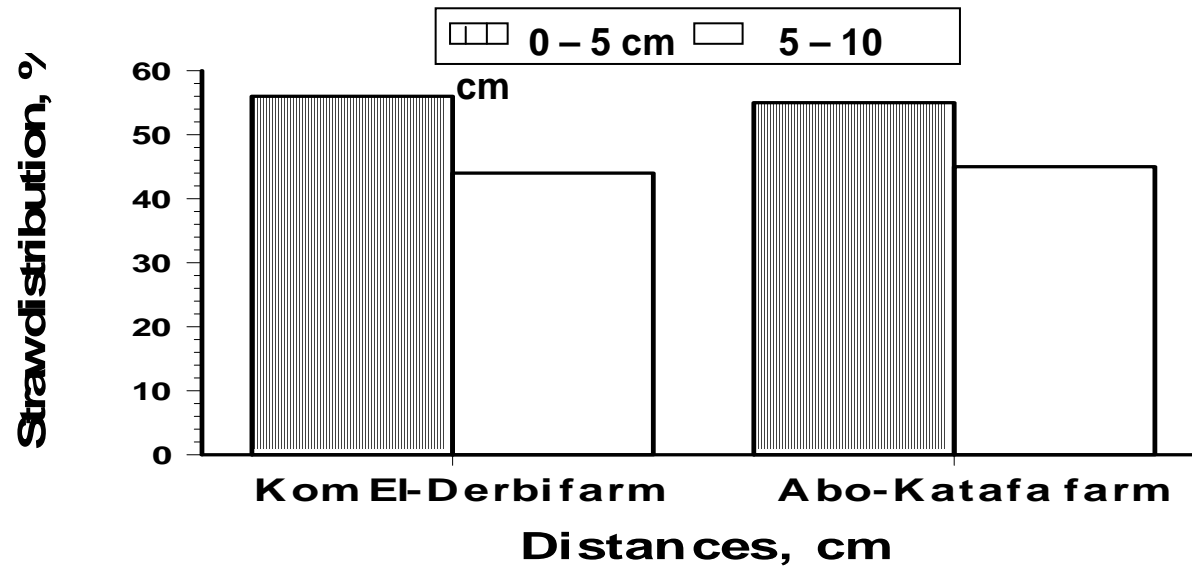
Dry straw cutting



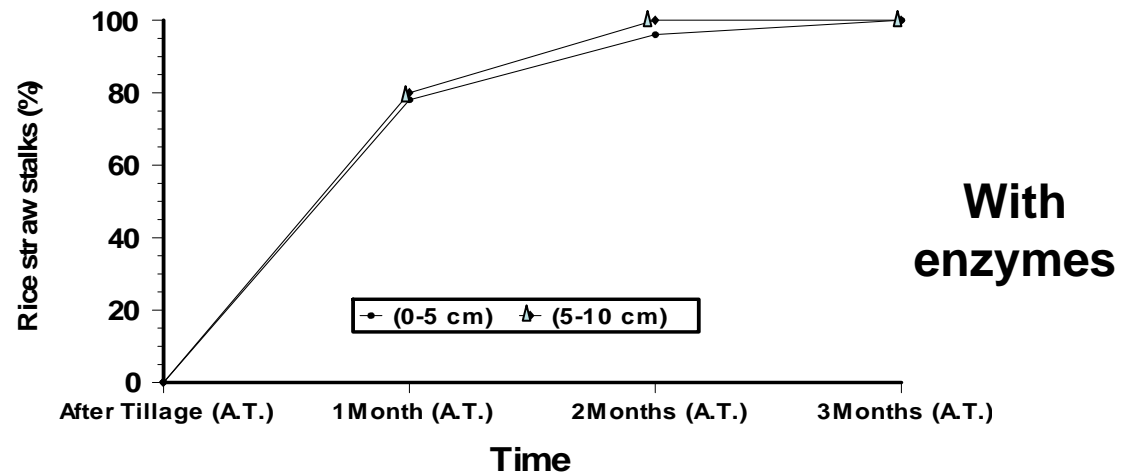
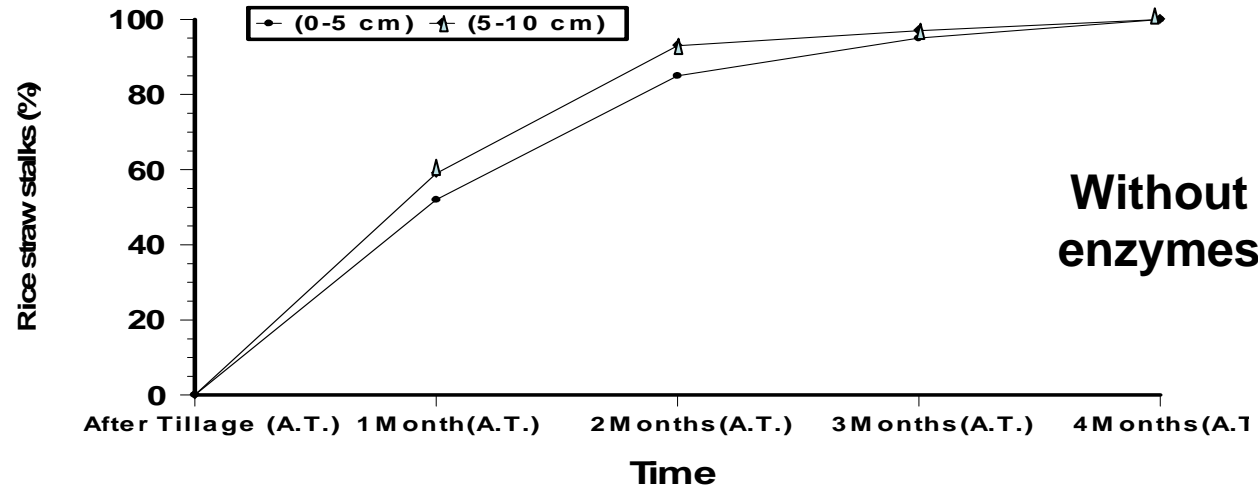
2- length of the straw after cutting



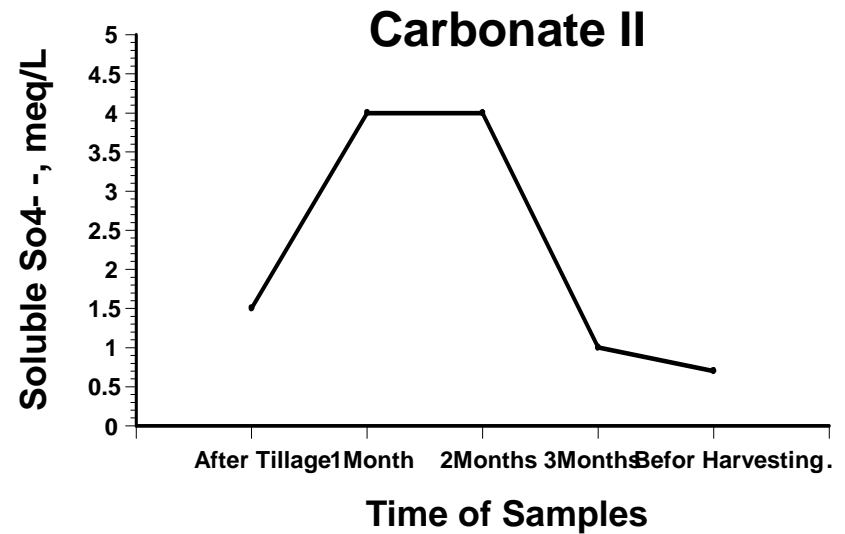
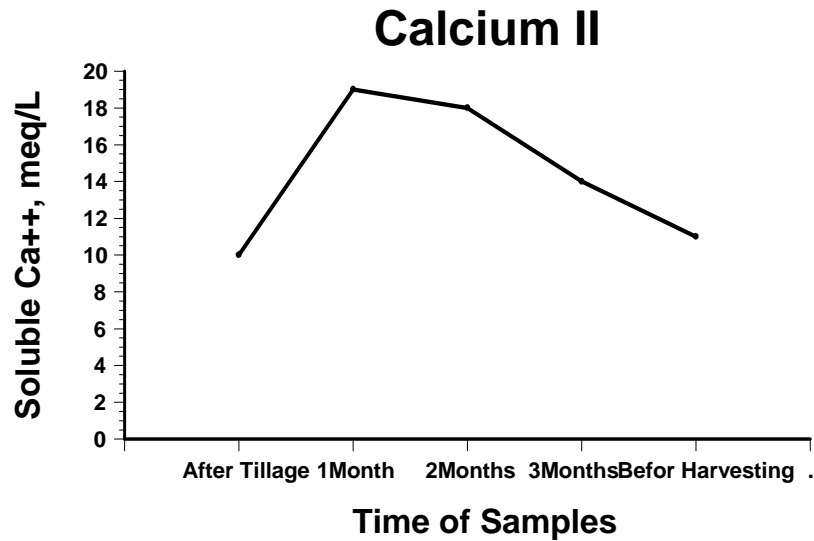
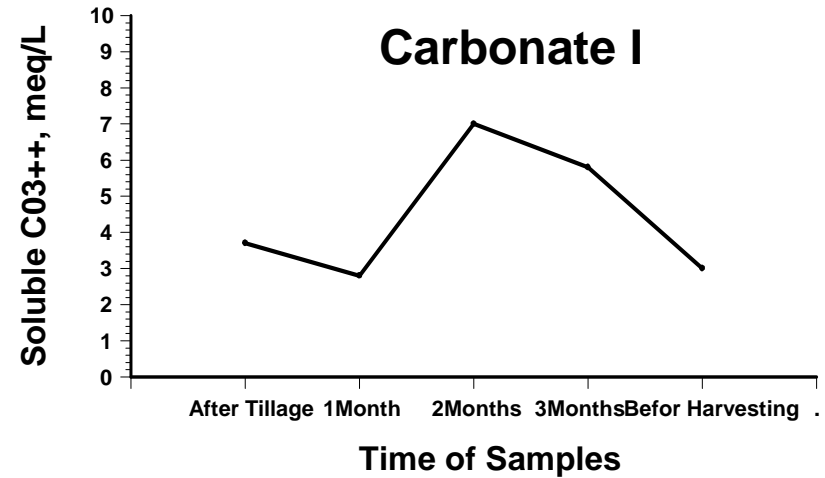
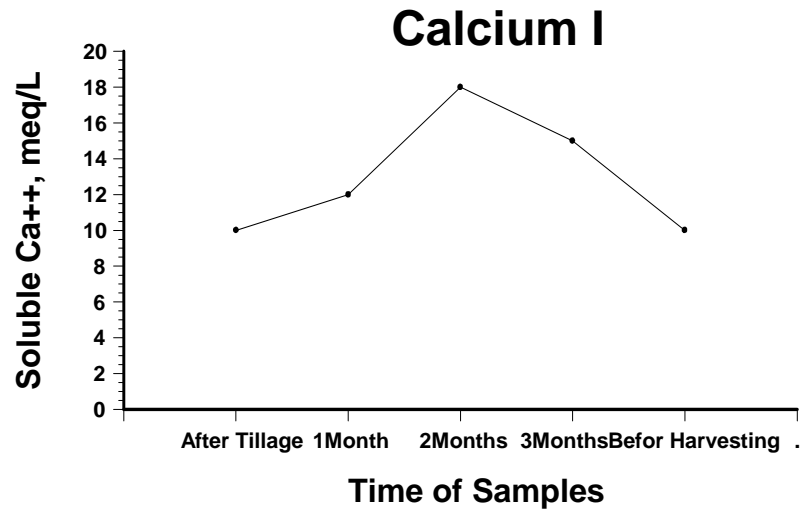
3- Distribution of cut straw in tillage section



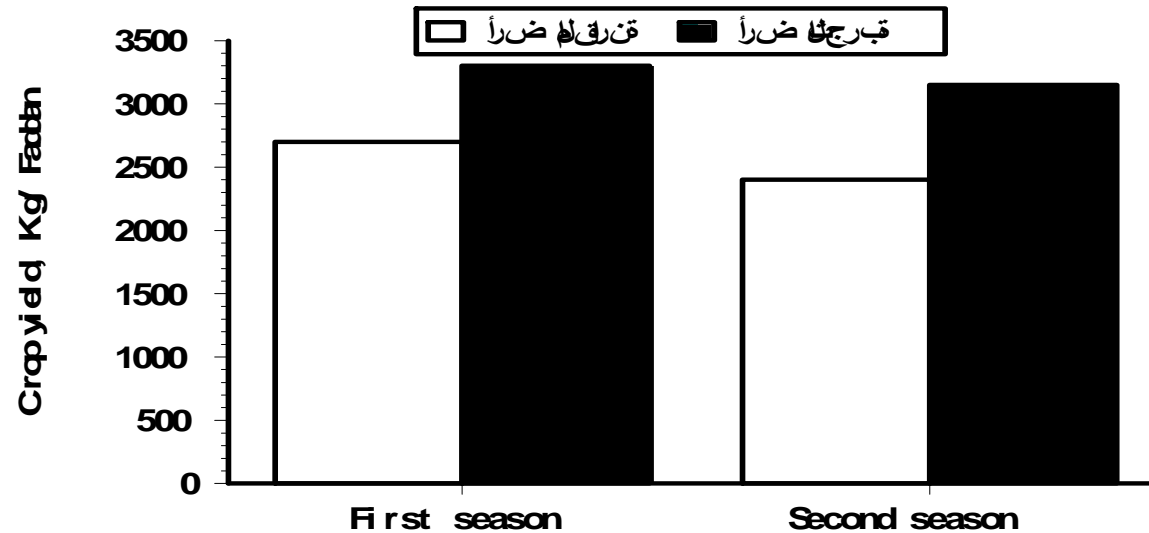
4- Rice straw hydrolysis



5- Effect of rice straw on the soil anions and cations



6- effect of starw addition on the productivity



Open bars: control treatment; closed bars: straw addition

Conclusion

* Solve the problem without in an environment friendly manner

* Cost-effective fertilizer

Increase productivity with 20-25%

قافلة إرشادية بإحدى قري محافظة الدقهلية

Thanks for your attention

