

## **Report of a documentary on the program of growing cotton with wheat in relay-intercropping system .**

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Program of growing cotton with wheat in relay intercropping system is one of the successful programs in the area of crop intensification, which resonated with farmers, which gave a satisfactory economic return compared to many traditional cropping Successions. This program has won the effort and attention of all researchers since the beginning of the research experiments in the Experiments Research stations, then moved on after that to apply in the farmers



fields through field trails program in different governorates and then implemented as extension fields through agricultural extension systems in governorates. Thus it is clear that the program has gone

through the steps research of recognized and accepted within the research plan of intensification department .



This program , in simple explanation , is the cultivation of wheat in time on the terraces and at pre-harvest wheat about 30-35 days cotton seeds will be planted on both sides of the terraces . After wheat harvest and empty the land from the remains of wheat , all agricultural practices will be done as a sole crop . The following are the scientific documentation of the steps that mentioned earlier:

### **I : Research Experiments:**

1 – Research experiments growing cotton with wheat in relay intercropping systems had beginning in the winter season of 1990 at Research Gemmiza Station, wheat crop was cultivation on terraces on Nov. 20 and then cotton on March 15, the experiment was repeated in the winter season 1991 to grow wheat

on 25 November and the cotton on March 30. This research was published in 1992. (1)



(Image 1. )

2 – In 1995/1996 -1996/1997 years , same program was planted at Tage EL-Ezz Station , to study the effect of the foliar micronutrients on the wheat and cotton growing in relay intercropping system .This research published in 1998 (2).



( Image 2.)

3 –Further experiments to study new factors were conducted at Gemmeiza Research Station . These experiments visited by vice - director of Field Crops Research Institute .This documented in photos , where he attended the harvest of wheat grown on the terraces and the

cotton grown on the both sides of the terraces .(Three images)

4 - Extension study was conducted to examine some variables affecting the degree of knowledge of farmers and the application of the recommendations related technical of growing cotton with wheat in relay intercropping system in Sharkia governorate. This research was published in 2002 ( 4)



(Image 3.)

5- In 2001/2002 and 2002/2003 years , research study conducted at farm research of the Faculty of Agriculture Zagazig University, has been carried out to study the intercropping system of cotton with wheat on the terraces, under different dates of planting systems with different nitrogen fertilization This research was published in 2005 (5)

6 - Other research study in 2003/2004 and 2004/2005 years , was conducted at farm research of the Faculty of Agriculture Zagazig University. This study has been



carried out to study the response of yield and yield components of cotton and wheat under relay intercropping system and different farming systems (including the cultivation of wheat on the terraces and in lines) as well as nitrogen fertilization . this research was published in 2006 (6)

7- Continuation of the experiments of the research program to study the factories not studied before . The program has implemented in research experiments at Mallawi research station in 2003/2004 and 2004 / 2005 to study the effect of four systems of growing cotton with wheat in relay intercropping systems . this research published in 2007 (7).

8 – A study was conducted during 2005/06 and 2006/07 years to established formulas for relay intercropping and crop sequence evaluations based on biological and economical parameters from crop intensification perspective . At the same time as prediction formulas to predict the success of intensive crop sequences from farmers view perspective . This study was published in 2009 ( 8)

## **II - Field trials :**

After the adoption of the research experiments of program , it was send to the implementation at the

of farmers fields by departments of the agricultural experiments at governorates and under the scientific supervision by researchers of the crop intensification department . This program has implemented at several provinces .



## **III – The extension program:**

After the success of the program through research experiments field trial , it has been reassuring to push him to the agricultural extension departments for the establishment of the extension fields at farmers fields . The first



implementation of this program in several provinces was through the project of the increasing rate of crop intensification .

A Field day for wheat harvesting that had grown on terraces had been done . That day , it has been invited to farmers from the region, as well as the presence of researchers from the department of crop intensification and other disciplines , as well as ,



delegates from the central administration of agricultural extension .The researchers explained the advantages of program . This day is recorded by photos , videos and also writing a report for prove its productivity per feddan of crop and signed by all those who attended this day .

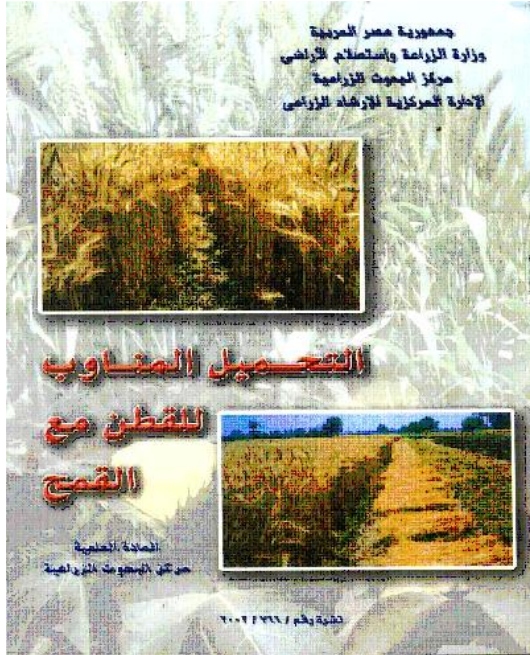
The implementation of the extension program was continued since 1997 until now .



In the year of 1997 , the first time of implementation of this program , harvest day has been done for wheat grown on the terraces , has been done at Belqass - district , Dakahlia governorate . This harvest day was recorded by photos (number of 10 images document No. 8).



For complete the extension program , the extension bulletin was published for explained how to grow wheat on the terraces and how to relay intercropping cotton with wheat . Bulletin number 361 / 2002. (9).



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6-El-hawary ,N.A. (2009) : Formulas for relay intercropping and crop sequences systems evaluation . Journal of Applied Science Research 5(12) : 2074-2082 . © 2009, INSInet Publication

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