



Press Release

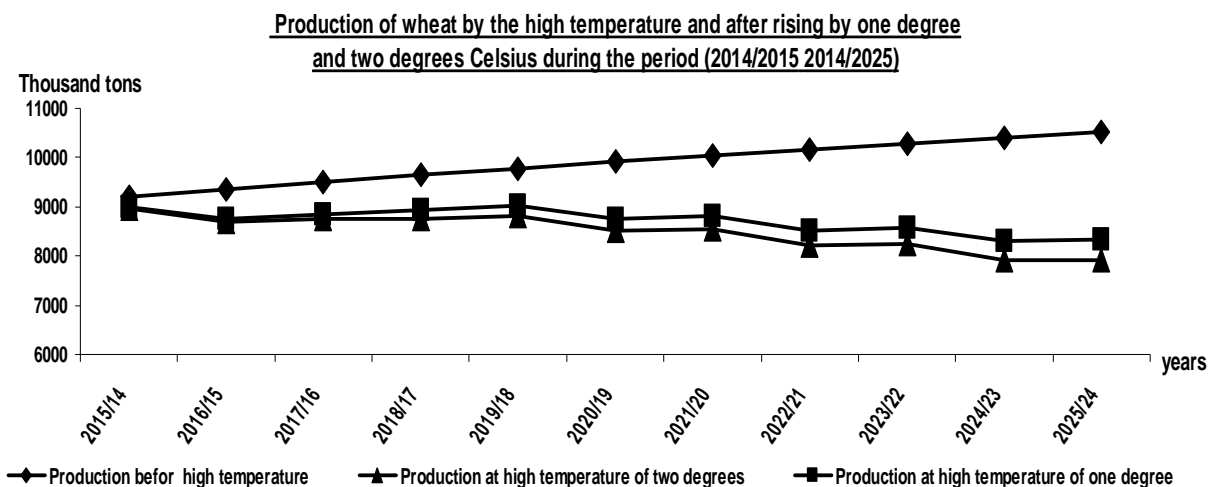
Central Agency for Public Mobilization And Statistics

18.2% rate of decline in productivity per acre of wheat case of high temperature one degree Celsius

Central Agency for Public Mobilization and Statistics (CAPMAS) issued the corresponding day 7 / 2/ 2017 a study "The impact of climate change on strategic crops in Egypt during the period (14/2015 -24/2025)."

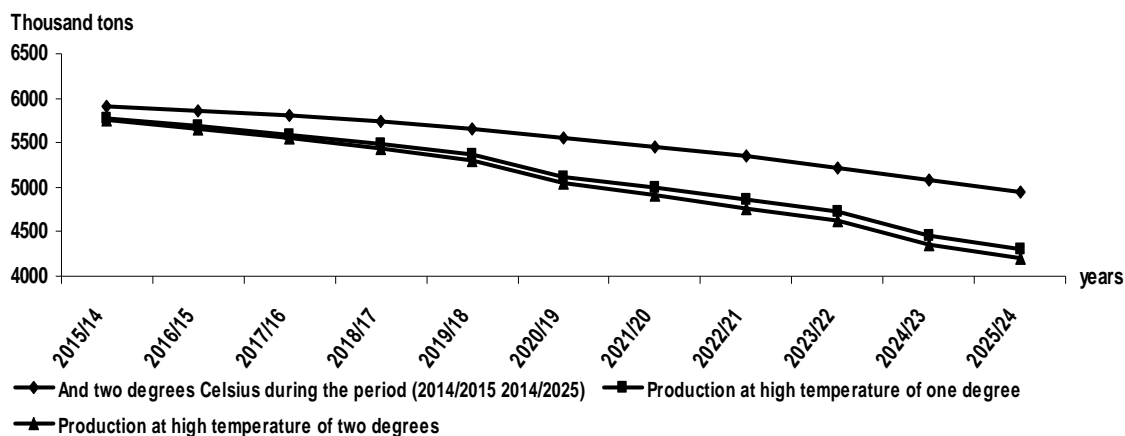
Among the most important indicators \ of the study include:

- Low productivity of wheat at high temperature by one degree Celsius from 2.69 tons / acre to 2.2 tons / acre that leads to lower at annual production from 9 million tons to 8.3 million tons during the period (14/2015-24 / 2025).
- Low productivity of wheat at high temperature by two degrees Celsius from 2.68 tons / acre to 2.09 tons / acre, which leads to reduce at annual production from 9 million tons to 7.9 million tons during the period (14/2015- 24/2025) .



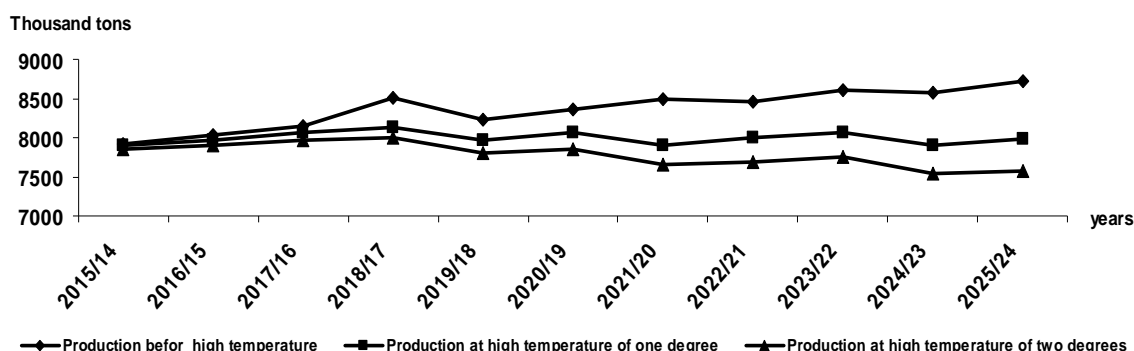
- Low productivity of rice at high temperature by one degree Celsius from 4.09 tons / acre to 3.79 tons / acre which leads to reduce at annual production from 5.8 million tons to 4.3 million tons during the period (14/2015-24/2025).
- Low productivity of rice at high temperature by two degrees Celsius from 4.08 tons / acre to 3.69 tons / acre which leads to reduce at annual production from 5.8 million tons to 4.2 million tons during the period (14/2015-24/2025).

Production of rice by the high temperature and after rising by one degree And two degrees Celsius during the period (2014/2015 2014/2025)



- Low productivity of maize at high temperature by one degree Celsius from 3.19 tons / acre to 2.76 tons / acre, and it is expected that annual production will increase from 7.9 million tons to 8 million tons during the period (14/2015 -24/2025) because of the expected increase in the cultivated area.
- Low productivity of maize at high temperature by two degrees Celsius from 3.17 tons / acre to 2.62 tons / acre what leads to reduce of the annual production from 7.9 million tons to 7.6 million tons during the period (14/2015-24/2025),although of the expected increase in cultivated area .

Production of maize before the high temperature and, after rising by one degree and two degrees Celsius during the period (2014/2015 -2024/2025)



The previous review shows that there are two ways to compensate for the shortage in the annual production because of high temperature. Each one of them has risks and high costs as follows:

- Reclamation area of land ranging between 73-990 thousand acres at a cost of \$ 162 million to \$ 2.2 billion, or importing a value ranging between 39-436 million dollars during the period (14/2015-24/2025) to compensate for the lack of the annual production of wheat at high temperature one degree Celsius, but in case of two degrees high temperature the area of land reclamation will be 86 thousand acres which costs from 191 million dollars to 2.7 billion dollars, or importing a value ranging between 46-519 million dollars during the same period to compensate for the lack of production of wheat at high temperature of an average \$ 281 million annually.
- Reclamation area of land ranging between 35-166 thousand acres at a cost of 78-369 million dollars, or importing a value ranging between 47-205 million dollars during the period (14/2015 -24/2025) to compensate for the lack at the annual production of rice at high temperature one degree Celsius, but in case of two degrees high temperature the area of land reclamation will increase to 39-202 thousand acres of a cost between 87-449 million dollars, or importing a value ranging between 52-242 million dollars during the same period.
- Reclamation area of land between 1-268 thousand acres which cost ranging between 2-596 million dollars, or importing a value ranging from 1-296 million dollars during the period (14 / 2015-24 /2025) to compensate for the lack of the annual production of maize at the high temperature of one degree Celsius, but in case of two degrees high temperature the area of land reclamation should increase between 17-437 thousand acres which cost between 38-972 million dollars, or importing a value ranging between 21-458 million dollars during the same period to compensate for the lack of production of maize at higher temperature.