ملخصات الابحاث المقدمة من الدكتورة/ داليا محمد الصوفى محمد

البحث الثالث

Sahar,E.A.Mosa**,DaliaM.Elsoofy**,Abdou,M.A.A.andAbdelraouf.R.E.(May2021)The ole of Organic Fertilization In Raising Potato Productive Efficiency and Water Productivity Under The conditions of Organically poor Sandy Soil .Egyptian Journal of chemistry Vol.64,No.5,pp.2273-2284.

دور التسميد العضوى فى رفع الكفاءه الأنتاجيه للبطاطس وانتاجيه المياه فى ظل ظروف التربه الرمليه الفقيره عضويا

ملخص البحث باللغة الأنجليزية:

Water application efficiency, soil organic matter content, water stress inside root zone, EC soil, yield, quality and water productivity of potato were investigated under arid and poor sandy soils in Egypt during two growing seasons 2018/2019 and 2019/2020 at the Research Farm of National Research Center (NRC). Water application efficiency and the average of soi organic matter content were increased by increasing the amount of organic fertilizers applied. The values of the yield of potato and protein content and carbohydrates content were increased by increasing the amount of organic N-fertilizers applied up to
50% and it decreased with the continued increase in organic N-fertilizers addition. The values of the yield of potato were increased by increasing the amount of organic N-fertilizers applied up to 50% and it decreased with the continued increase in
organic N-fertilizers addition. There are a set of positive effects resulted from the increase in the addition of N-organic fertilizers against one negative effect. The increase in the addition of organic N-fertilization led to an increase in the organic matter and thus increased the water application efficiency, thus a decrease in water stress and a decrease in the accumulation and concentration of salts in the area of root proliferation until reaching the best proportion of organic N-fertilization when adding 50% with 50% of mineral nitrogen fertilization, while the productivity decreased when continuing with the percentage of addition of organic N-fertilization until reaching the lowest values of productivity when organic N-fertilization is 100% where, the total percentage of nitrogen available (NO_3) in the area of root proliferation decreased after the percentage of organic fertilization exceeded 50% and the negative effect of nitrogen fertilization stress on the decrease in potato productivity. Finally, the results of the study concluded that, the necessity of relying on organic nitrogen fertilization in addition to mineral nitrogen fertilization at 50% organic to 50% mineral without any significant impact on the productivity and quality characteristics of potato under arid and sandy soils conditions in Egypt.