

The purpose of the research was to find out whether the adverse abiotic factors of the Southern Steppe zone would affect the planned yield, which was grown on irrigated fields.

Berehynia is a mid-season transportable variety of melon, suitable for storage for 15-30 days. The period of ripening is between 74-92 days. Yield can reach 180-280 centners per hectare. Fruits are smooth with oval or spherical form, weighing 1.2-3 kg. The colour of the ripe fruits is yellow-orange with a medium grid or with its elements [1, p.147].

For the research an area of dark chestnut soils was chosen. The content of nutrition was the following (mg / kg): N - 105 mg / kg; P<sub>2</sub>O<sub>5</sub> - 130 mg / kg; K<sub>2</sub>O - 148 mg / kg. The density of the solid phase ranges from 2.53 to 2.68 g / cm<sup>3</sup>, increasing with depth. The density of the upper humus horizon is 1.15-1.17 g / cm<sup>3</sup> and is favorable for cultivated crops.

In 2018, winter wheat was the predecessor on this area. After the removal of the predecessor, the stubble was peeled, followed by harrowing where it was necessary. The plowing took place on October 5<sup>th</sup>. After the onset of the physical maturity of the soil, a harrowing was conducted in the spring to close the moisture.

Melons are sown when average daily temperature is around 15-18 C, according to the climatic conditions of the southern steppe zone, it is in the third decade of April or the first decade of May. By this time it is necessary to keep the field clear of weeds, due to this in the middle of April another harrowing and cultivation were carried out.

The melon was sown on May 2<sup>nd</sup> on a depth of 4 cm by the SUPN-8 seeder. Before sowing, the seeds were treated with a plant growth regulator "Vympel 2" using the method of inlay in the standards recommended by the manufacturer. First seedlings were obtained on day 14, i.e. May 16<sup>th</sup>. On May 17<sup>th</sup>, cultivation was conducted, and the next day the first manual weeding started (lasted for 3 days). On May 21<sup>st</sup>, the first irrigation was started using the 450 Fg / frigate irrigation system, which lasted for 2 days. After irrigation, the first treatment with the fertilizer "Karbamid" in combination with the growth regulator "Vympel 2" and potassium humate in the norms recommended by the manufacturer was carried out. There were only three treatments, during the second and third treatments were added insecticides against pests Bi-58 in the norms recommended by the manufacturer for this crop. Watering, weeding and cultivation also took place three times. On August 2<sup>nd</sup>, the harvest began, ending in early September. Productivity per hectare in 2018 was 17 tones per hectare, exceeding the expected yield by 14%.

In conclusion we can point out that the Southern Steppe zone of Ukraine is one of the best zone for melon cultivation, but it is necessary to take into account the predecessors, built technology and irrigation system.

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## THE ROLE OF ELECTRIC TRANSPORT IN MODERN LIFE

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Now more and more often you can notice electric vehicles in the streets, gradually introducing ourselves into our lives. Each time there are more and more types of electric vehicles. Just on the contrary, any transport previously used by us is replaced with an electric one or a new one is being invented. For example, if we used to ride bicycles, scooters or rollers, now there is an electric bike, an electric scooter and even electric rollers, not to mention electric cars.

If more recently, electric scooters, gyroboards, gyroscooters were mainly bought for children and adolescents, then in recent years, there are more and more middle-aged and older customers [3].

The main difference between this type of transport and conventional analogues is that the source of energy for the operation of such an apparatus is electricity and not gasoline. It is driven by an electric internal combustion engine and a simple electric motor [1].

Let us consider advantages and disadvantages of electric transport.

The advantages are:

– the ability to charge batteries from a standard electrical network, which can significantly save on costs. In addition, there is the opportunity to save on cheap nightly electricity that is generated by power plants at night;

– noise reduction;

– ease of development of transport (except for a car);

– relative reliability and durability of the engine during long-term operation;

– lack of harmful exhausts;

– convenience in driving;

– a light weight;

– compactness;

– suitable for both children and adults.

The disadvantages are:

– the difficulty of moving for long distances;

– a small number of charging stations;

– short mileage and limited speed;

– long recharge time;

– the need to replace the battery every 3–10 years;

– in winter, battery power is increased due to interior heating. Therefore, mileage in autumn, winter and spring are reduced by 20-50% compared with the summer period [2, p.109].

In conclusion, we would like to emphasize that in the near future electric transport will prevail, as everyone strives for innovation and replaces the old one. Electric cars will also prevail when their cost is equal to or even less than conventional cars

## References

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## PERSPECTIVES OF USING IOT TECHNOLOGY IN AGRICULTURE

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According to the scientific and technological progress development, the use of innovative technologies in various spheres of life becomes more and more relevant. This issue is particularly acute for various branches of the agro-industrial complex (AIC), whose products are of high demand [2]. Consequently, for the high production quantities and minimization of costs there is a need of optimization in agricultural industry, which becomes impossible without the introduction of