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IN THE WORLD AND IN UZBEKISTAN CLEAR FARMING OF TECHNOLOGIES APPLICABILITY, EFFECTIVENESS AND PROSPECTS.

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Annotatsiya: Mazkur ilmiy maqolada aniq dehqonchilik (precision agriculture) texnologiyalarining nazariy asoslari, shakllanish bosqichlari, dunyo qishloq xo‘jaligida qo‘llanilish tajribasi hamda O‘zbekiston sharoitida joriy etish holati chuqur tahlil qilingan. Aniq dehqonchilikning resurs tejamkorlik, hosildorlikni oshirish, agroekologik barqarorlikni ta’minlash va iqlim o‘zgarishiga moslashuvdagi roli ilmiy manbalar asosida yoritilgan. GPS, GIS, masofadan zondlash, agrodrone, sensorlar, differensial sug‘orish va o‘g‘itlash texnologiyalarining amaliy ahamiyati ochib berilgan. Shuningdek, O‘zbekistonda aniq dehqonchilikni joriy etishdagi muammolar, cheklovlar va istiqbolli rivojlanish yo‘nalishlari milliy agrar siyosat nuqtai nazaridan baholangan.
Kalit so‘zlar: aniq dehqonchilik, raqamli qishloq xo‘jaligi, GPS, GIS, agrodrone, resurs tejamkorlik, differensial o‘g‘itlash, iqlim o‘zgarishi, O‘zbekiston.
Аннотация: В данной научной статье представлен углубленный анализ теоретических основ технологий точного земледелия, этапов их развития, опыта мирового сельского хозяйства и состояния их внедрения в Узбекистане. На основе научных источников освещается роль точного земледелия в ресурсосбережении, повышении продуктивности, агроэкологической устойчивости и адаптации к изменению климата. Раскрывается практическое значение GPS, ГИС, дистанционного зондирования, агро дронов, датчиков, дифференциального орошения и технологий удобрения. Также с точки зрения национальной аграрной политики оцениваются проблемы, ограничения и перспективные направления развития точного земледелия в Узбекистане.
Ключевые слова: точное земледелие, цифровое земледелие, GPS, ГИС, агродрон, ресурсосбережение, дифференциальное удобрение, изменение климата, Узбекистан.
Abstract: This scientific in the article The theoretical foundations of precision agriculture technology, stages of formation, level of application in world agriculture, and the current state of development of Uzbekistan are analyzed in depth. The role of precision agriculture in resource saving, productivity, ensuring agroecological diseases, and adaptation to climate change is highlighted based on scientific sources. The practical significance of GPS, GIS, remote sensing, agrodrone, sensors, differential irrigation and fertilization technologies is revealed. The problems, challenges, and promising directions in the implementation of precision agriculture in Uzbekistan are assessed from the perspective of national agrarian policy.
Key words: precision farming, computer agriculture, GPS, GIS, agro drone, resources thrift, differential fertilization, climate change, Uzbekistan.

Globally population fast in pictures reproduction, food to their products was demand increase, natural resources limitedness and climate change village on the farm new approaches Current to reach demand is doing. Traditional farming systems high harvest to take Although it provides, it often resources backside consumption and ecologist problems brought releases.
This point of view obviously, clearly Dehkan is one of the important innovative directions of modern agriculture. Based on the adoption of individual agrotechnical decisions for a part of the field in the laboratory, it serves to increase the impact of production on the environment along with individual agrotechnical decisions.

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Uzbekistan village on the farm There are problems of water scarcity, soil salinity, and degradation, and there is a significant scientific and practical boost in the introduction of precision farming technologies.

Precise farming is field and of crops step by step and time according to teaching into account Olga without agricultural technology events differential to manage based This is a system. approach following scientific to principles relies on :

- soil unforgettable territorial differentiation ;
- variability in crop biological properties;
- agroecologist of factors dynamics;
- data-driven decision making.

The main goal of precision farming is **to obtain maximum economic benefit from each unit of land while causing minimal damage**.

In the world clear farming of technologies development.

Developed countries Precision farming technologies are being widely used in countries such as the United States, Canada, Germany, France, the Netherlands, and Japan**.** In these countries, agricultural production is highly **digitized** and real-time management is implemented.

For example, in the USA, based on GPS controllable village farm techniques using planting seeds The accuracy has been increased to 95–98%. Differential fertilization technologies have reduced the consumption of mineral fertilizers by an average of 20–25%.

From a distance probing and agro drones. Artificial satellite and agro drone technologies of crops status provides rapid assistance. Vegetation indices such as NDVI and EVI provide information on photosynthetic activity, nutrient deficiencies, and stress conditions.

Agro drone using plants based on the burden that arises from precisely regulating the protection.

In Uzbekistan clear farming Current ethnic status, national agrarian politics within the framework of . Uzbekistan Republic village Digitalization of agriculture is one of the stable directions of state policy. The latest adopted regulatory legal acts specifically protect agricultural technologies.

Water- absorbing farming under the circumstances Water technical technologies, production, drip irrigation and differential irrigation systems are being widely implemented.

Practical experiments' Some farmer GPS navigation on farms They have experience with techniques, agro drones and digital agro maps. Grain and cotton Differential fertilization technologies in crops increase yields by 8–12%.

Precise of farming agronomist and economic efficiency. Precise farming following has advantages :

- of productivity stable increase ;
- effective use of water and mineral fertilizers;
- working release expenses decrease ;
- labor unforgettable increase;
- agroecologist of stability provision .

Scientific to research according to , clearly farming technologies when used working release cost by 10–20% decreases .

Problems and restrictions. In Uzbekistan clear farming wide Current to reach following factors ninety is doing :

- high elementary investment ;
- experts shortage ;
- • information infrastructure limitedness;

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- small farms for economic risk taking.

This problem eliminates ethnic for scientific - research institutes, higher education institutions and working release between integration necessary.

Precise of farming development prospects . In the future clear farming sun intelligence, big data (Big Data), agro - robotics and " smart" village " economy " systems with harmonized. Uzbekistan under the circumstances this technologies food safety in supply important role plays .

Precise farming technologies village farm working release efficiency increase, resources reasonable Usage and ecologist stability in supply important scientific and practical importance The introduction of advanced practices accumulated in the world and their adaptation to the conditions of Uzbekistan will serve the production of the agricultural sector.

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