JOURNAL OF MULTIDISCIPLINARY SCIENCES AND INNOVATIONS
GERMAN INTERNATIONAL JOURNALS COMPANY
ISSN: 2751-4390
IMPACT FACTOR (RESEARCH BIB) : 9,08. Academic reserach index

RAINING IRRIGATION HISTORY

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Abstract: The history and development of sprinkler irrigation technology has become an important part of the efficient use of water resources in agriculture today. This article aims to study the historical foundations of sprinkler irrigation, its stages of development, technological changes, and practical applications. The origin of sprinkler irrigation dates back to ancient times, but its scientific foundations and modern methods emerged in the 19th and 20th centuries. The article analyzes the evolution of the technology, its efficiency, environmental impact, and economic benefits through important inventions and research.
Keywords: Sprinkler irrigation, technology, irrigation, wells, drip, sprinkler, water, resource, efficiency.

Introduction. Raining irrigation – village farm to crops water rain in the form of to give method is considered. Traditional irrigation from the methods different as if sprinklers using water straight away to the field to deliver for service This is what of water wastefulness minimizes and improves efficiency increases. Raining irrigation main purpose water irrigation area along one flat distribution is to provide.

This of the system history ancient to the times go and its development modern village farm in their practices important place It rains. irrigation not only of plants effective growth provides, but water saving and ecological stability also important in storage has.

Raining irrigation historical roots ancient city to cultures go In Egypt, Mesopotamia and India irrigation systems there is are, they are mainly canal and irrigation wells using done However, it rained. irrigation clear shape, that is of water from above down to be lowered, for the first time ancient In Greece and the Roman Empire to the surface It is considered to have arrived. During this period, irrigation for used tools and methods very simple are, they are irrigation random or at hand executable methods was.

19th century second in half, industry revolution during the rainy season irrigation technology development began in France and England in the 1860s. this of the method initial mechanisms working It was also released. in the period previously used simple and many laborious irrigation methods instead mechanic systems It rained. irrigation systems scientific basics this at the time formed and irrigation efficiency to increase aimed at approaches studied.

At the beginning of the 20th century, especially in the 1920s and 1930s, irrigation technological aspects further developed, this systems more village farm in the fields apply started. American engineers, notably Leland R. Doane and others pioneers, previously pushed mechanic systems further improved and developed the first sprinkler systems These systems water big to the fields equal accordingly to distribute opportunity giving, plants effective irrigation new opportunities created.

Raining irrigation first commerce systems were widely used in the 1950s spread out began. During this period water savings, productivity growth and labor expenses reduce important to goals With the help of new materials and technologies by making it rain irrigation systems special to efficiency also achieved modern systems automated, computer systems with controlled and diverse similar plants for special adjustable to opportunities has it has been.

Saudi Arabia has introduced a Center Pivot irrigation system on land that had not been irrigated for thousands of years. This innovative approach has yielded high returns, resulting in millions of

dollars in agricultural output.
Several countries around the world have also adopted this effective method. Countries such as the United States, China, Australia, and Brazil are also using centralized irrigation systems to increase agricultural productivity on previously unirrigated land. This technology has proven to be a global solution for increasing crop yields and contributing to the sustainable use of water resources in different geographical conditions.
The scientific basis for sprinkler irrigation was formed in Australia in the 1950s. This method of irrigation was developed as a result of the research of Australian engineer, Dr. Simcha Blass. He used water of plants root to the zone directly convey through of water effective consumption possible This is new. method, especially arid in the regions ecological and economic in terms of useful it has been.
Raining irrigation system Entered the US in the 1960s During this period, rural America farm intensive development in the phase there are many arid in the regions of crops irrigation very important become The system is To the USA enter arrival and use one how many factors with related :

- **Water resources limitation:** The USA southwest and southeast in parts natural water resources limited, therefore for water effective use important to the point became.
- **Technology Development:** Rained in the 1960s irrigation system for necessary was technological infrastructure and equipment (e.g. plastic tubes) developed.
- **Village on the farm development:** USA agrarian field new to technologies interest increased, because by making it rain irrigation system of crops harvest to improve and water to save opportunity created.

Raining irrigation system In the USA initially southwest in the regions, especially In the states of California and Arizona These areas natural water to the sources relatively very limited was, so for this of the system effectiveness and advantages quickly felt.
From this In addition, the system was further expanded in the 1970s. expand, other village farm also entered the regions came. At first, this system mainly arid in the regions used although, later crop types growth and irrigation optimization as a result this technology whole country along became popular.
Raining irrigation system to develop scientific basics. Raining irrigation technology originally in Australia in the 1950s working issued although, its complete development and practical application In Israel done Israel, its natural geographical The conditions are mainly arid and semi -arid. arid in the regions location because of this to technology big need felt. Israel agrarian in the field efficiency increase and water resources saving necessity this technology wide to spread help gave.
Raining irrigation system Israel to the state enter arrival. Since the 1960s Israeli scientists this new irrigation system to practice wide implementation do During this period, Israel's agricultural and scientific engineering in the fields experts, water resources savings and crops effective irrigation for the purpose new technologies current However, Israel 's to oneself typical natural from resources of use effective method find for further clear and efficient to technologies need was noticed. In this regard large from the news one, in 1965, by the Israeli company Netafim creation with This company is related to by making it rain irrigation system to develop big contribution added.
Netafim company place. In Israel in 1965 organization Netafim company, which has been irrigation system working in release and commercialization important role The company, Israel large village farm in the regions experience installation and system to practice current in the process of to success achieved. Netafim system, irrigation to the pipes microscopic holes placement through water clear and direct plant to the roots delivery gives, this and water to save opportunity creates. From this except for the Netafim system his/her own efficiency and wide application with not only Israel, maybe whole world big all-around attention Israel won. arid in the regions by making it rain irrigation technology irrigation traditional to the methods relatively much more efficient and economical in terms of useful it has been.

In Israel by making, it rains irrigation system expansion. In Israel by making it rain irrigation system, since the 1970s, the whole country along in expansion continue This technology, mainly, two main to the factor relies on :

- **Water resources limited:** Israel to the water relatively very limited country is, its population and village farm needs for enough water sources provide important importance has. Raining irrigation system, water effective in a way use through this issue solution to do opportunity gave.
- **Technological innovations:** Israel research institutions and rural farm in the field experts, this technology develop for effective developments done New materials and methods, rained irrigation system efficiency further increased.

Israel by making it rain irrigation technology export to do. Israel by making it rain irrigation system technological achievements other Export to other countries to do This is the country 's global village farm technologies according to the leader to the cycle help Israel agrarian technologies, especially developing countries for very interesting it happened because these technologies, arid areas and less water to resources has was countries for very useful

Raining irrigation system advantages and importance

In Israel by making, it rains irrigation system not only water in saving, maybe of the harvest quality also important in increasing importance has. Other traditional irrigation to the methods than, raining irrigation system following to the advantage has:

- **Water resources saving:** Raining irrigation system, water clear and efficient in a way plant to the roots delivery gives, this and water to save opportunity creates.
- **Crop quality improvement:** Irrigation process own on time and correctly execution of the harvest quality improves.
- **Soil erosion prevent to get:** Raining irrigation system, soil erosion and repair works for requires less, because water distribution prevent to take for necessary was of the earth movement decreases.

Conclusion: Raining irrigation system, in Israel arid climate conditions and limitations water from resources effective use for necessary was technology as developed. Israel, this technology in development leader country as known and used globally wide distributed by. Today day, Israel experiences and achievements world along by making it rain irrigation systems to become popular big impact Israel large village agriculture and water resources in management innovative approaches, other countries for example become service does.

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