



Crop Circles

A New Development in Punjab's Agriculture

If you live in plain areas of the Punjab, sooner or later, you will get a question about “crop circles” that can be observed from airplane windows during flights over the region. The answer is contained in the question, these are circles of cropland. Such “crop circles” can also be observed at Mr. Nawaz’s Farm located in Chak No. 57/DNB, tehsil Yazman of district Bahawalpur, about 15 Km from Lahore to Karachi National Highway (N5) in the center of the famous Cholistan desert.

“This circular shape is the result of center pivot irrigation—a development that is changing the landscape of Punjab’s agriculture. In fact, the rise of center pivot irrigation turned the plains—an area that had been dry land for more than 100 years—into a place that could sustain thirsty crops such as Raya, Alfalfa and Rhode grass”. Mr. Nawaz told the secret behind these circles.

M. Nawaz installed center pivot irrigation system on his 300 acres barren land in 2020 and cultivated Mustard on 200 acres as first crop on his farm. He explains *“we operate this center pivot with electricity generator because 150 HP pump requires higher source of power. We irrigate crops with canal water. This system is entirely different than the traditional flood irrigation. We can irrigate 12 acres of land in just one hour with the help of this system.”*

First Mustard crop provided Mr. Nawaz a good yield of 12 mounds per acre. Now, he has cultivated Rhode grass on 300 acres. Rhode grass is most profitable crop under cultivation with center pivot irrigation system, Mr. Nawaz believes.

While sharing the benefits of this technology, he shared “*center pivot irrigation is a technological triumph-it may transform the agricultural geography of the Punjab. I remember the days when I was searching for such a system which could irrigate my whole land within few hours with less manpower. All praise to Allah Almighty, one of my friends guided me about this system and told that On Farm Water Management wing of Agriculture department with the support of the World Bank is providing financial and technical services for its installation. After installation, I found that this irrigation system is more efficient as it provides 50 percent water and fertilizer saving and huge time saving. But the most imperative advantage for me is labor saving as irrigating 300 acres requires about 30 workers with traditional systems. Now, I have only 3 workers at my farm to operate this system to irrigate entire land*”.



Mustard crop is under cultivation with center pivot irrigation system at Nawaz’s Farm

Center pivot irrigation technology can be adopted for large range of soil topographies and suitable for about all types of soils, except heavy clay. In addition, center pivot irrigation can provide protection to plants against harsh weather conditions. It also helps to improve crop and water productivity resulting in higher farm/ economic returns. Due to its huge benefits, many progressive farmers in the Punjab are showing interests to adopt this latest & efficient irrigation technology. Undoubtedly, these crop circles can help Pakistan to serve as a food basket to this part of the world.