

## Proto9 Community Outreach

Proto9 is the R&D arm of the Samta Group, an organization dedicated to formulating agricultural fertilizers that boost crop yields and farmers' livelihoods.

When I did my internship at Proto9, a company that conducts research and development on nanofertilizers, I was particularly intrigued by how they came up with innovative solutions to increase crop yields in a sustainable manner. I spent weeks immersing myself in their data analysis lab and their formulation labs, learning their research process. However, I aspired to extend my contribution beyond the laboratory walls to make a tangible impact on the farming community. Thus, the real challenge began when I participated in extensive field visits across a large rural agricultural belt near Ujjain and Indore after my internship. The focus of this outreach was to educate communities to use and implement nano-fertilizers developed by Proto9 to improve agricultural productivity and sustainability.

During my fieldwork, I observed the discussions between Proto9 field executives and the farmers, learning how to communicate the benefits and applications of nanofertilizers in accessible, non-technical language. Soon after, I began interacting directly with farmers, asking questions about their crop patterns, listening to their feedback, and helping them understand how consistent and balanced use of these fertilizers could lead to healthier crops, superior fruit quality, and higher yields that ultimately increased their household incomes.

At farmer assemblies, I had the opportunity to address large audiences in the regional language, elucidating the advantages of nutrient-rich fertilizers like KTS (potassium thiosulfate) and NPK (nitrogen phosphorus potassium 11:11:8). I tried to simplify scientific ideas into analogies that they would understand. "Just as drip irrigation is more efficient even though it uses less water, nanofertilizers are a controlled and precise way of delivering nutrients to crops", I explained. The turning point came when one of the farmers applied a free sample on his fields, and called the others to see the result a few days later.

The experience taught me that bridging scientific innovation with human needs is not just about communication, but about empathy and purpose. It reinforced my belief that true progress in any field is measured not by innovation alone, but by the positive and lasting change it cultivates within communities.