

## DEPARTMENT OF BOTANY EXTENSION ACTIVITY - 4

### Soil fertility analysis and distribution of soil health cards (14/02/2024) - Floral Hill, Malaparamba

The poster features a large tree on the left and a circular logo with the text '100% JOB READY REACHING' in the center. At the top right, it reads 'PROVIDENCE WOMEN'S COLLEGE, KOZHIKODE' with a NAAC accreditation logo and 'Reaccredited by NAAC with A++ Grade (3.65)'. Below this, it says 'DEPT. OF BOTANY BHOOMITHRASENA NATURE CLUB & BIODIVERSITY CLUB'. The main title is 'SOIL FERTILITY ASSESSMENT'. It mentions 'IN COLLABORATION WITH REGIONAL SOIL ANALYTICAL LAB GOVT. OF KERALA KOZHIKODE' and shows a laboratory setup with a microscope and test tubes. A calendar icon indicates the date '14 Feb 2024'. Below that, it says 'FOR RESIDENTS OF FLORICAL HILL MALAPARAMBA'. A list of 'Advantages' includes: Improved Soil Health, Customized Crop Recommendations, Optimized Nutrient Management, Enhanced Crop Resilience, Cost Savings, and Environmental Protection. At the bottom, there are icons for Sustainable Development Goals 3, 11, and 15.



## **Report on Soil Fertility Assessment**

**Date:** 14 February 2024

**Survey:** College Premises and 35 houses in the Nearby Residential Areas, Florican Hill, Malaparamba

**Organized By:** Department of Botany in collaboration with the Regional Soil Analysis Laboratory, Kozhikode

**Participants:** 39 III BSc Botany students

The Department of Botany, Providence Women's College organized a soil fertility assessment on February 14, 2024, conducted in collaboration with the Regional Soil Analysis Laboratory, Kozhikode. The assessment focused on analyzing soil fertility in the areas of Florican Hill and the college premises in Malaparamba, Kozhikode. This initiative provided hands-on training in soil sampling techniques, enabling both students and residents to analyze the soil texture, porosity, and physico-chemical parameters of their household soils. Each student collected two samples—one from the college premises and another from one of the 35 participating households in the residential area. These samples were then analyzed for various physico-chemical parameters, including soil fertility.

The results were compiled into soil health cards and distributed to the residents. This initiative helped residents gain valuable insights into their soil's nutrient status and physico-chemical characteristics. Empowered with this knowledge, they can now make informed decisions about soil management practices, particularly for gardening and farming.

### **Community Engagement and Impact:**

The outreach component of the program provided valuable benefits to the local community. Residents received detailed analyses of their soil samples, including insights into fertility and nutrient status. This information empowers them to make informed decisions regarding soil management practices for gardening and farming.

### **Student Contributions:**

- Students applied their knowledge by interpreting the data collected from the soil analyses. They presented their findings in the as comparisons between soil samples from different locations.
- Insights into factors influencing soil fertility and health.
- Recommendations for soil improvement tailored to local conditions.

### **Conclusion:**

The soil fertility assessment program successfully bridged academic learning and community service. It not only provided valuable practical experience to the students but also contributed to the broader goal of community development through scientific outreach. By understanding and improving soil health, both students and local residents are better equipped to promote sustainable agricultural practices.