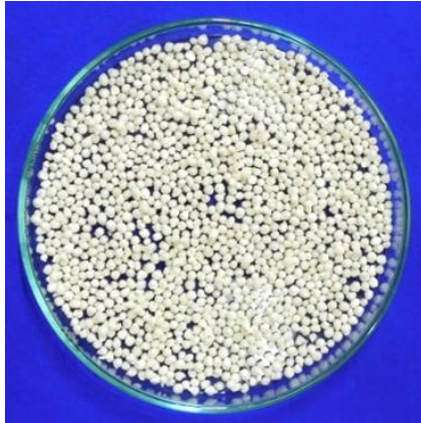
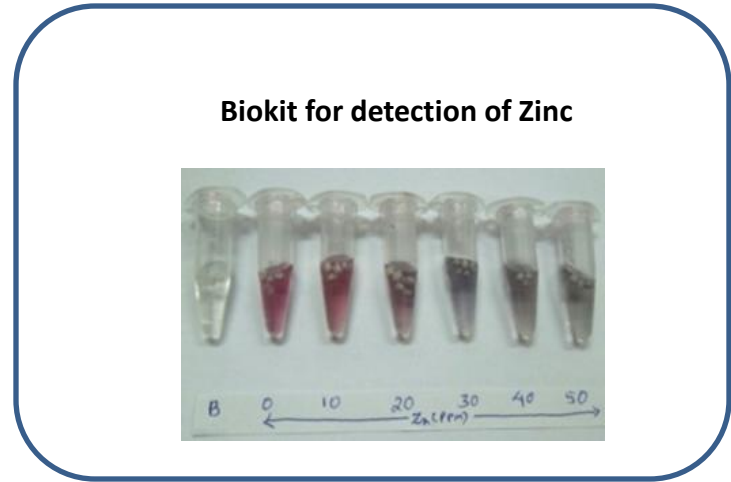








Biokit for detection of zinc



Biobeads



Color	Zn (ppm)
	0
	10
	20
	30
	40
	50

Zinc is an essential plant micronutrient and hence its detection is important. A simple and easy to use biosensor is under development for detection of zinc at ppm level based on the principle of interaction of zinc with formation of gold nanoparticles using immobilised plant extract and thereby effecting change in the color of the solution. The system has three important components such as immobilised plant extract biobeads, gold chloride and zinc (0-50 ppm) in the form of zinc sulfate.

In the reaction mixture containing gold ions and varying concentration of zinc (0-50 ppm), 5 biobeads are used. After placing the beads and gentle mixing of the reaction mixture, the color development occurs within 4-5 minutes. The system can detect upto 50 ppm zinc. The main advantage of this method is all the components including biobeads can be stored at room temperature and no electricity is required either during storage or detection. The biokit has a self life of six months.