

Plants and humans have had a solid connection from the beginning of time. Man has depended on plants for clothing, medicine, and food. Plants have also been used as a source of dyes in the past. With the development of human society, man has learned to make synthetic products to fulfill the needs of the ever-growing human population. Mosquitos have been a malice and source of many diseases in humans. Different insect-repellent coatings are present in the market which are chemically prepared and can be harmful to humans and the environment. Different plants have insect-repellent properties which have been utilized in this research to make a nature-based insect-repellent surface coating. *Moringa oleifera* L. and *Mentha piperita* L. are naturally insect-repellent plants. Firstly, water extracts from both plants were prepared with the microwave-assisted extraction method. Phytochemical analysis of plant extracts was performed. Flavonoids, terpenoids, alkaloids, phenols, proteins, tannins, glycosides, and steroids were present in both plants. Both plants showed significant antimicrobial activity against *Escherichia coli* and *Staphylococcus aureus* bacteria. Nanoparticles increase the surface area and efficiency of extracts of plants, thus nanotechnology was incorporated into this research. ZnONP of *Moringa oleifera* L. and *Mentha piperita* L. plants were made and characterization was done through UV-vis spectroscopy, FTIR, and PSA. The UV-visible spectrum showed absorption peaks for ZnO nanoparticles at 350nm for *Mentha piperita* L. and 356nm for *Moringa oleifera* L. The particle size analysis indicated the variable sizes of ZnONPs for both plants. FTIR showed vibration peaks from 3341 to 650cm⁻¹ for *Moringa oleifera* L. and 3393 to 700 cm⁻¹ for *Mentha piperita* L. Higher peaks indicate the presence of other functional groups present. ZnONPs were used in paint along with water extracts of plants to make the paint insect-repellent in nature. Antimicrobial test was performed on paint formulations against *Escherichia coli* and *Staphylococcus aureus* bacteria. A whiteness index assessment of the paint was performed and different factors like DL, Da, Db, and DE were assessed. Mosquito repellent activity of paint formulations was also tested against *Aedes aegypti* and paint formulations with plant extracts were more effective than those of zinc oxide nanoparticles.