

Protect apples by mineral coating

Chemically treated fruits are injurious to health, hence, that should be avoided. There is a new way to reduce the use of chemicals. Mineral coating could cut chemical use. Successful experiments have been done in South America, South Africa, Australia and New Zealand to protect fruits with a Kaolin coating. The Kaolin, a type clay used in paint, pottery and cosmetics is safe to ingest. Kaolin spray on apples reduces sunburn and insect & pests damage and increases their size and yield. Trees wearing the specially processed kaolin coat reflect the heat producing infrared wavelengths as well as the burning ultraviolet rays. Infact it keeps the tree cooler under scorching sun and protect them from frost damage. The rate of photosynthesis also increases. As a result, a healthier tree gives higher yield year after year. Economically Kaolin spray is about equal to the application of the insecticides. Not only apples but pears, grapes, lemons, peaches and some vegetables can also be protected through this white washing. More researches are being done at the USDA-ARS Appalachian Fruit Research Station to explore Kaolin's potential as a carrier for just about any



chemical used on the farm- pesticide, fungicide, herbicide and pheromone etc. It can be used as a matrix to hold chemicals on the plant or soil and get more even distribution. This improved technique would benefit the environment, farmers and consumers. Perhaps in India the use of Kaolin in fruit, vegetable and other crop protection is yet to be experimented; USDA; ARS has already filed patent for this technique [Mc Bride, *Agric Res*, 2000, 48(11), 14].

Use Kaolin to control citrus weevil

Kaolin is a water-soluble, soft, white clay mineral. Entomologist of the U.S. Horticultural Research Laboratory in Florida found a unique way to eradicate broad-nosed weevil, *Diaprepes abbreviatus* and its eggs from the leaves of citrus trees. For this purpose Kaolin formulation was prepared by soil scientists.

Kaolin combined with water can be sprayed on citrus and other trees to form a protective particle film. This film prevents the eggs of this pest from sucking the leaf. Each female produces up to 5,000 eggs and deposit them on leaves. Kaolin film spray was found to check the deposition of the eggs. Kaolin also prevents the weevil from feeding on citrus leaves as it hinders the weevil in sensing and identifying host plant. Adult weevil feeding was reduced by 68-84 per cent on treated foliage.

Thus the hardy *D. abbreviatus* which causes heavy loss to the Citrus crop can easily be knocked out by this eco-friendly and economically viable method [Garcia, *Agric Res*, 2001, 49(3), 18].