

## Recent regulations on safe plant protection materials in Taiwan

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### ABSTRACT

Plant protection materials are very important resources to ensure agricultural production. After huge chemical pesticides were synthesized and used, it in no doubt has increased food and fiber production but it certainly has caused adverse effect to environment and health. Once the plant protection agents were applied to crops, the residues would most likely get into our food chain. This undoubtedly would expose us to the risky residues and make people aware more of the importance of food safety. The trends in recent decades are to develop safe pesticides with low toxicity, high efficiency and high specificity, and to encourage organic and environmentally friendly farming without using excess of chemical pesticides. But a safe plant protection material or its formulation is still regarded as a pesticide and should be regulated by authority under the management acts. This implies a needed complicate registration procedure, which would jack up the costs for commercialization. According to the regulation act of pesticide in Taiwan, no matter whether it is classified as chemical pesticides or biopesticides, data required for registration include studies of physicochemical properties, toxicities, and field trials of efficacy, residue, and phytotoxicity. All of these studies should in compliance with good laboratory practice (GLP) guideline. The recent policy guidelines set for registration and the reduction of pesticide are in conflicts for biopesticide. Most biopesticides are general regarded as safe, but they are still considered at low techniques readiness level (TRL), especially those used as botanic pesticides. Due to the above-mentioned unsettled guidelines and conflicts, it would be a long way to commercialize safe products that in turn can't speed up chemical pesticides reduction and/or replacement. The authority in charge of the regulation acts has been considerate in trying to modify the reclassification of risk assessment.

Deregulation on highly safe products will apply with registration exemption or waive some data requirement.

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