Integrated pest management (IPM) is a pest management strategy that focuses on long-term prevention through regular monitoring and a combination of control methods. IPM attempts to prevent losses from pests in ways that are effective, economical, and available, while maintaining safety of the crop, people, and environment. IPM is based on a thorough understanding of the pest, so cultural, mechanical, biological, genetic, and chemical techniques can be integrated to optimize control. Pest management tactics commonly used in field crop situations include the use of resistant varieties, crop rotation, and the use of pesticides. Pest Resistance. Pesticides fail to control some pests because the pests are resistant to the pesticides.