Dr. Suzanne Blatt

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Dr. Blatt is a Research Scientist at the Kentville Research and Development Centre focused on the study of integrated pest management and its application to the field of agriculture. She completed her BSc in Agriculture with a minor in Chemistry studying plant protection and continued her work on this topic through her PhD and Postdoctoral Fellowships. At the time of completing her PhD there were various government cutbacks which resulted in few available positions in the field, so she completed a few Postdoctoral Fellowships to wait out the job market, before returning to school to complete her MSc in Analytical Chemistry studying protein orientation on gold surfaces using PMIRRAS. After graduation she was able to get a dream job in her field with the Government of Canada and has continued her research program ever since.

Within the organization researchers report to two Directors. The Director of Research, Development and Technology (RDT) who oversees project funding, and collaborations, and the Associate Director RDT, who deals with the logistics of the research centre, including technical support, lab, and greenhouse allocation. There are currently 19 scientists working at the centre, with each researcher leading or participating in 4-7 projects. Dr. Blatt and the other researchers are responsible for many administrative tasks, including the hiring process for students, which makes their research programs like running a small business, akin to professors running academic research labs. Projects are funded through a variety of sources, including internal government grants under themes of production, green energy, and environment, or through collaborations with industry, which are usually focused on targeted questions related to crop production. Funding covers costs associated with their projects, including paying farmers compensation in the event a non-registered product is applied to their crop as treated crop cannot be sold to consumers.

One of Dr. Blatt's favourite aspects about her work is the freedom and variety of projects that can be done within the field of integrated pest management (IPM), including the study of tree characteristics, biological controls, conservation, and landscape effects on beneficial and pest populations. One example of this is the use of molecular techniques on samples from apple trees to observe which genes are up or down regulated in response to attack by aphids and correlate this with their level of susceptibility. This and many other techniques are used in projects that, for instance, are exploring when to use various pesticides during a season. Heat waves affect insect detoxification and immune systems, and therefore affect their response to pesticides, which include bacterial or nerve toxins. Some of Dr. Blatt's work seeks to determine if insects are more susceptible to pesticides at certain temperatures or after exposure to a heat wave. This could ultimately lead to a more efficient use of pesticides, through effective application timing or possibly a decrease in the amount required for population control. Dr. Blatt's research also explores the interaction between environment (or location) and pest control strategy, such as use of host volatiles for mass trapping. Differences in the pest populations could mean that a strategy that works on the west coast of Canada might not work on the east coast. Dr. Blatt publishes her work in various peer-reviewed journals.