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Executive Summary:

- Research and development director with more than 15 years of experience in the agricultural chemical sector coupled with a broad scientific and regulatory background.
- Leader of the technical and regulatory division of an agricultural chemical firm supplying pest control and fertilizer products internationally for nearly a decade.
- Oversight of pesticide research, development, production, quality assurance and registration with EPA and State agencies.
- Experience in team leadership, project management, planning, technical communication and product regulatory submissions and compliance.
- Minimum risk pesticide and repellent development experience including formulation, toxicological testing, ingredient sourcing, material compatibilities, and production scaling.
- Strong analytical and problem solving background in science, regulations and management.

Experience:

Consulting Scientist Carroll Loye Biological Research 1998 – Present

- EPA pesticide registration consultant - investigating scientific and regulatory requirements and determining supporting sources of data to meet state and federal requirements.
- Evaluation of organic product classifications for National Organic Program (NOP) regulatory compliance with product registrations via OMRI and WSDA.
- Insect repellent evaluations for efficacy, including target and non-target species response behavior.
- Minimum risk (previously 25(b)) pesticide development, testing, labeling, quality assurance and state registration.
- Insect behavioral response research evaluating the effects of human-applied chemistries.

Technical Director Cal Agri Products, LLC 2005 – Jan 2015

- Oversight of chemical pesticide and fertilizer product development.
- Management of domestic and specific international pesticide and fertilizer regulatory submissions and compliance.
- Direction of a team of scientists that examined technical aspects of pesticide and fertilizer products.
- Oversight of product toxicity evaluations, quality assurance and label development for pesticides and fertilizers.
- Oversight of organic agricultural product “material” registration for use on organic farms via WSDA and CDFA for state and federal organic input material compliance.
- Selection and collaboration with academic and independent researchers to perform agricultural product evaluations under laboratory, greenhouse and field conditions.
- Oversight and authoring of technical documents: research proposals, protocols, regulatory packages, and presentations.
- Hired, managed and determined the advancement of staff within the technical division.

Research Technician/Analyst Cal Agri Products, LLC 2003 – 2005

- Performed pesticide efficacy and phytotoxicity evaluations in the laboratory and field.
- Aided development and scheduling of product research trial protocols with in-house and outside researchers.
- Evaluated product research data and authored technical data summaries and reports.
- Performed chemical specific toxicological database searches (NTIS, ToxNet, NPIRS and TSCATS) for product registration requirements and potential active ingredients and inert chemistries.
- Examined inert formulation components for product development and regulatory compliance.
- Fielded technical inquiries from product researchers and distributors.
- Aided draft pesticide label and draft MSDS development.

Contracted Researcher Cal Agri Products, LLC 2000 – 2003

- Performed product efficacy research trials and product plant safety assessments for phytotoxicity.
- Performed field collection and rearing of pest, predatory and parasitoid insects and affiliated host plants.
- Analyzed insect ecology and life-stage development for evaluation of proper pesticide application methods.

- PCR techniques – primer design and amplification of mtDNA, srDNA, microsatellites, RAPDs.
- Electrophoresis and sequencing of PCR products including comparative DNA analysis.
- Geographical population genetic analysis to examine selection of genetic traits by environmental variation.
- Subspecies identification using mitochondrial and nuclear genetic markers.

Abilities:

- Scientific leadership, team-building, project management, problem solving.
- Entomological research – experimental design, coordination and implementation.
- Quality assurance methods and analyses for input material and end-product evaluation.
- Compilation of agricultural chemical registration data for state, federal and international regulatory packages.
- Determination of existing chemical data or data gaps for product regulatory requirements.
- Performing and contracting physical chemistry, environmental and toxicological studies for regulatory compliance.
- Effective communication of technical concepts to technical and non-technical personnel and management.
- Writing, editing and review of scientific, regulatory and technical documents and reports.
- Organic material input classification and compliance with the National Organic Program (NOP).
- Agricultural chemical business start-up experience, from inception to international distribution.
- Insect sampling, identification and classification.
- Insect rearing techniques for agricultural pests.
- PCR techniques, including DNA extraction, quantification, amplification, electrophoresis and primer design.
- Geographical population genetic and animal behavioral data analysis.
- Insect behavior and genetics research protocol development and implementation.
- Knowledge of social insect behavior and apiculture.

Education:

- Bachelor of Science – Genetics, 1991. University of California, Davis
- Doctorate of Philosophy – Entomology, 1999. University of California, Davis

Publications and References: Available upon request.