GLOBAL DEVELOPMENT OF SMARTBLOCK™
J. Immaraju* and J. Orr
AMVAC Chemical Corporation, 4695 MacArthur Court, Suite 1250, Newport Beach, CA 92660.
A new class of potato sprout inhibitors belonging to the alpha-beta unsaturated aldehydes and ketones,
discovered at Washington State University was licensed to AMVAC in 2005. SmartBlock (3-decen-2-one),
a 10-carbon unsaturated ketone has been under development for the past five years and regulatory
approvals are currently pending in the USA and Canada. Commercial development projects are underway
in Japan and Europe. Preliminary development trials in other countries are in progress as well. SmartBlock
has a unique mode of action for controlling post-harvest sprouting in potatoes. When thermally activated,
the active ingredient vaporizes easily and destroys the sprout’s meristematic tissue. Additionally, the
metabolites, 2-decanone and 2-decanol, provide residual control for approximately 2-3 months depending
on the potato cultivar and storage conditions. When registered, SmartBlock is expected to provide the first
true alternative to the carbamate CIPC [isopropyl-N-(3-chlorophenyl) carbamate]. Solo SmartBlock
treatments will obviously yield no carbamate residues while SmartBlock used in combination with CIPC
should lead to a net reduction in carbamate residues in tubers. The presentation will focus on the efficacy
profile and outline potential sprout control programs with SmartBlock in the future.