

Unlocking the Mystery of Pesticides CRM Stability for Food Analysis

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There is a growing global need for pesticide residues testing in a wide variety of food commodities. In response to this need, testing laboratories must develop versatile analytical methods and workflows in order to produce scientifically sound results which ensure the safety of our food. One of the many challenges faced by food chemists is acquiring suitable pesticide certified reference materials (CRMs) to calibrate analytical equipment, monitor method performance and confirm the identity and concentration of hundreds of pesticide residues in food samples. Questions regarding the stability of pesticide CRMs abound among users and there's a need to educate and inform the community. CRM producers invest considerable resources to ensure the stability of their products. The authors will present proper CRM handling and storage practices as guidance to ensure stability based on the results of several multiresidue pesticide stability studies. The results of three pesticide mix stability studies will be shown demonstrating what can be expected after pesticide mix ampules are opened and stored for use, and also when mixed together to prepare 200+ compound multi-residue mixes for routine LC-MS/MS and GC-MS/MS laboratory analysis.



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As RESTEK's Business Development Manager for the global Food & Agriculture market Joe applies his 37 years of analytical chemistry experience toward identifying market needs, new technologies, product opportunities and overseeing technical content development for new workflow solutions. Prior to RESTEK Joe spent 19 years working for some of the nation's largest environmental testing laboratory companies as a bench chemist and in technical and laboratory operations senior management roles. Joe has been an invited speaker on sampling and analytical chemistry topics globally. He serves in volunteer leadership roles for the Independent Laboratories Institute (ILI), the American Council of Independent Labs (ACIL)'s Food Sciences Section and AOAC International. Joe is also an active member of NACRW and AOCS. Direct correspondence to joe.konschnik@restek.com.