

Attachment 5

Accounting for Regional Differences in Meteorological Conditions.

FEMS is designed to serve as a tool to evaluate the exposures to agricultural fumigants throughout all of the major use areas in the United States. To account for regional differences in meteorological conditions that affect transport and dispersion of emissions from fumigants, the following steps are proposed to account for regional differences. Once the protocol is approved, the processing of meteorological data could proceed to allow users the option of selecting the region of interest.

The subdivision of the United States into agricultural regions, emphasizing those areas with the greatest use of fumigants, would first identify major regions. The following major regions have been proposed for FEMS: California; Florida; the Great Lakes; the Pacific Northwest; and the Southeast.

Within each of these general regions, the primary fumigation use areas would be identified. Natural division points would be selected, with 4 to 8 sub-regions identified in each major region. On-line sources of meteorological data files will facilitate the acquisition of 2 to 5 years of sequential meteorological data to represent each sub-region, with priority being given to those sources of meteorological data that are most representative and have five years of sequential meteorological data available.

Each of these data sets would be evaluated through FEMS for using common regulatory endpoints (6 hypothetical endpoints per run). An evaluation would be performed of the results to determine if some of the sub-regions could be combined because the results are not significantly different. On the basis of this evaluation, a final number of sub-regions will be identified for inclusion in FEMS.

Once the preceding steps are completed, users would be provided with a nested choice of regions: (1) first to select the major region, and (2) to select the sub-region of interest for the model run. This approach provides assurance that regional effects can be considered, while avoiding the adverse effects of using the most conservative meteorological data set to represent the entire region.