

from: William Rothman MD re: the "six pack" toxicology tests that the governor said are being done on the new pesticide formulations.

On Apr 25, 2008

From: William Rothman, M.D.

To: Paul Schramski

Dear Paul:

As you see from the email below, this email, Nan Wishner has asked me to provide my perspective concerning the Governor's decision to rely upon "six pack" toxicology tests, which are tests for the acute irritative effects, to arrive at his decision as to whether the chemical mixture proposed for LBAM aerial spraying is safe.

The inadequacy of his approach, in evaluating the toxicity of the material proposed for aerial spraying, is apparent, for among other reasons, the following reasons:

1) Issues of acute toxicity will not be resolved, because:

a) Different individuals react to different extents, to the effects of many chemicals.

b) With aerial spraying, winds and other factors will result in differing degrees of human exposure in different areas where the sprayed material lands.

c) Because aerial spraying will result in a significant amount of material being deposited on roofs and in tree branches, from which sites the material will later

be blown off, and down, by the wind, and will then go on exposing people to the chemicals, the time of exposure to irritative effects will, in many instances, be very prolonged.

Six Pack acute testing will not evaluate for this factor.

d) Six Pack testing will not evaluate the effects of the chemicals on the respiratory systems of individuals who have asthma and/or emphysema and/or bronchietasis, because, due to their abnormal pulmonary structures, such individuals are less well able to clear inhaled materials from the respiratory passages, and so will have a much prolonged exposure to what ever irritative effects the sprayed chemicals will exert. This will, of course, lead to an increase of irritative effects in such individuals.

Acute six pack testing will take into account the effects in such individuals.

2) Limiting testing to acute effects is not adequate to assure safety, because:

a) Among the chemicals used in the proposed sprayed material, are chemicals which, according to the National Institute of Occupational Safety and Health and/or the European Union Program on Safety and Health, and/or the chemical manufacturers' Material Safety Data Sheets, have detrimental health effects, including genetic damage, reproductive damage, fetal damage, and carcinogenicity, all of which, while clearly health-damaging, are not acute, and so will not be revealed by the Six Pack toxicologic testing proposed by the Governor.

Among the chemicals in the proposed mixture, which one or more of the above referenced sources associate with one or more of the above listed detrimental health effects are to be found the following:

2-hydroxy-4-n-octyloxybenxophenome,

1,2-benzisothiazol-3-1

Butylated Hydroxytoluene

Tricaprylyl methyl ammonium chloride.

b) Because the spraying program is proposed to be ongoing, perhaps for one to three years, it is very important

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that, to evaluate safety, the effects of prolonged human exposure to the pheromone itself be tested. Six Pack testing for acute effects will clearly not be related to such subchronic and/or chronic exposure.

Clearly the amount of pheromone to which people will be exposed, from area-saturation effect spraying, during the prolonged period over which the spraying will take place, will be much greater than the amounts of any pheromone to which people have ever been exposed.

The subchronic and chronic effects of such relatively large exposure would need to be tested for, if a true measure of safety were to be sought. Acute "Six Pack" testing is unrelated, and without value to such considerations.

Best Wishes,

Bill (Rothman MD Retired, Marin CA)