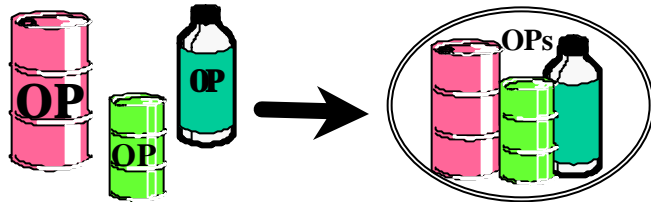


Previously when setting a residue tolerance, EPA examined each pesticide individually, one crop or use at a time, and added a safety factor to ensure that the tolerance was safe for adults.

Under FQPA, EPA must examine groups of pesticides based on *common mechanism of toxicity*, i.e., pesticides which act in a similar way in the human body. For example, all organophosphate (OP) insecticides affect humans the same way.



Also, EPA must consider *aggregate exposure*, i.e., exposure to pesticides in the diet plus exposure through all non-dietary sources.

dietary exposure



+

non-dietary exposure



Finally, EPA can add an additional safety factor, reducing tolerances by up to a factor of 10, to protect children.

What does this all mean? Think of the tolerance as a “risk cup”. The cup holds the total amount of a given pesticide that a person could be exposed to every day, for 70 years, without additional health risks.



What does FQPA do to the Risk Cup?

Previously, the cup was filled with the residue of a single pesticide:



Result: Cup gets crowded; less room for each pesticide.

Under FQPA, the cup is filled with the residue of many pesticides with a common mechanism of toxicity:



Previously, the cup was filled with the residue from dietary exposure:



Result: Cup gets crowded; less room for each use.

Under FQPA, the cup is filled with the residue from dietary and non-dietary exposure:



Previously, the cup included a safety factor for adults:



Under FQPA, the cup can include an additional safety factor for kids:



Result: Cup gets smaller; less room for pesticides and uses.