

Tier I Ground Sprayer Assessment Methodology for low boom height  
and orchard/airblast scenarios:

(Based on SDTF field trials)

$$D_x = \frac{c}{(1 + ax)^b}$$

Curve shape parameters were estimated using least-squares analysis.  
parameters:

$D_x$  = Deposition level relative to the nominal application rate

$x$  = downwind distance

$a, b, c$  = curve shape parameters

A high boom model was developed by extending the low boom model.

Ground sprayer assessment methodology for high boom height:

$$D_x = \frac{c}{(1 + ax)^b} (1 + A * \exp(-Bx))$$

$D_x$  = Deposition level relative to the nominal application rate

$x$  = downwind distance

$a, b, c$  = curve shape parameters

$A, B$  = determined by matching the high boom data with at 25 ft  
and assuming that high boom deposition is ten percent  
higher than low boom deposition at 2600 ft