**Summary of Water Modeling of Spinotoram BTM Do Not Exceed and the USEPA Standard Pond**

Estimated Environmental Concentrations for Spinotoram BTM Do Not Exceed are presented in Table 1 for the USEPA standard pond with the PAappleSTD\_V2 field scenario. A graphical presentation of the year-to-year peaks is presented in Figure 1. These values were generated with the Pesticide Water Calculator (PWC), Version 1.52. Critical input values for the model are summarized in Tables 2 and 3.

This model estimates that about 1.3% of Spinotoram BTM Do Not Exceed applied to the field eventually reaches the water body. The main mechanism of transport from the field to the water body is by runoff (56.9% of the total transport), followed by erosion (35.3%) and spray drift (7.77%).

In the water body, pesticide dissipates with an effective water column half-life of 19.9 days. (This value does not include dissipation by transport to the benthic region; it includes only processes that result in removal of pesticide from the complete system.) The main source of dissipation in the water column is volatilization (effective average half-life = 19.9 days).

In the benthic region, pesticide is stable. The vast majority of the pesticide in the benthic region (99.93%) is sorbed to sediment rather than in the pore water.

**Table 1. Estimated Environmental Concentrations (ppb) for Spinotoram BTM Do Not Exceed.**

|  |  |
| --- | --- |
| Peak (1-in-10 yr) | 1.59 |
| 4-day Avg (1-in-10 yr) | 1.02 |
| 21-day Avg (1-in-10 yr) | 0.475 |
| 60-day Avg (1-in-10 yr) | 0.386 |
| 365-day Avg (1-in-10 yr) | 0.305 |
| Entire Simulation Mean | 0.222 |

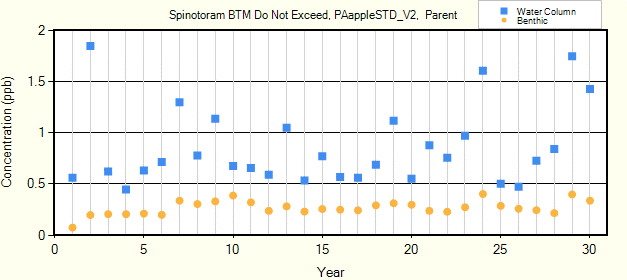
**Table 2. Summary of Model Inputs for Spinotoram BTM Do Not Exceed.**

|  |  |
| --- | --- |
| Scenario | PAappleSTD\_V2 |
| Cropped Area Fraction | 1 |
| Koc (ml/g) | 12511 |
| Water Half-Life (days) @ 20 °C | 0 |
| Benthic Half-Life (days) @ 20 °C | 0 |
| Photolysis Half-Life (days) @ 40 °Lat | 0 |
| Hydrolysis Half-Life (days) | 0 |
| Soil Half-Life (days) @ 20 °C | 0 |
| Foliar Half-Life (days) | 3 |
| Molecular Weight | 760 |
| Vapor Pressure (torr) | 1.6e-7 |
| Solubility (mg/l) | 11.3 |
| Henry's Constant | 4e-3 |

**Table 3. Application Schedule for Spinotoram BTM Do Not Exceed.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Date (Mon/Day) | Type | Amount (kg/ha) | Eff. | Drift |
| 4/15 | Above Crop (Foliar) | 0.491 | 0.99 | 0.01 |

**Figure 1. Yearly Peak Concentrations**



**Summary of Water Modeling of Spinotoram BTM Do Not Exceed and the USEPA Standard Reservoir**

Estimated Environmental Concentrations for Spinotoram BTM Do Not Exceed are presented in Table 1 for the USEPA standard reservoir with the PAappleSTD\_V2 field scenario. A graphical presentation of the year-to-year peaks is presented in Figure 1. These values were generated with the Pesticide Water Calculator (PWC), Version 1.52. Critical input values for the model are summarized in Tables 2 and 3.

This model estimates that about 1.2% of Spinotoram BTM Do Not Exceed applied to the field eventually reaches the water body. The main mechanism of transport from the field to the water body is by runoff (60.8% of the total transport), followed by erosion (36.7%) and spray drift (2.52%).

In the water body, pesticide dissipates with an effective water column half-life of 22.7 days. (This value does not include dissipation by transport to the benthic region; it includes only processes that result in removal of pesticide from the complete system.) The main source of dissipation in the water column is volatilization (effective average half-life = 27.2 days) followed by washout (138.5 days).

In the benthic region, pesticide is stable. The vast majority of the pesticide in the benthic region (99.93%) is sorbed to sediment rather than in the pore water.

**Table 1. Estimated Environmental Concentrations (ppb) for Spinotoram BTM Do Not Exceed.**

|  |  |
| --- | --- |
| Peak (1-in-10 yr) | 3.98 |
| 4-day Avg (1-in-10 yr) | 2.84 |
| 21-day Avg (1-in-10 yr) | 1.36 |
| 60-day Avg (1-in-10 yr) | 1.05 |
| 365-day Avg (1-in-10 yr) | 0.800 |
| Entire Simulation Mean | 0.574 |

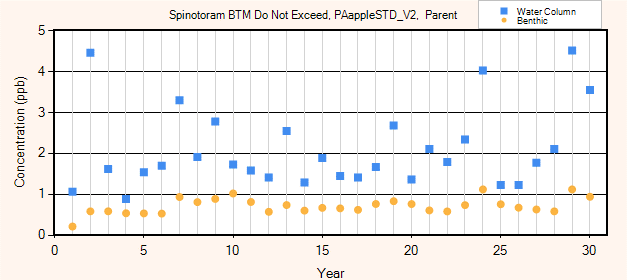
**Table 2. Summary of Model Inputs for Spinotoram BTM Do Not Exceed.**

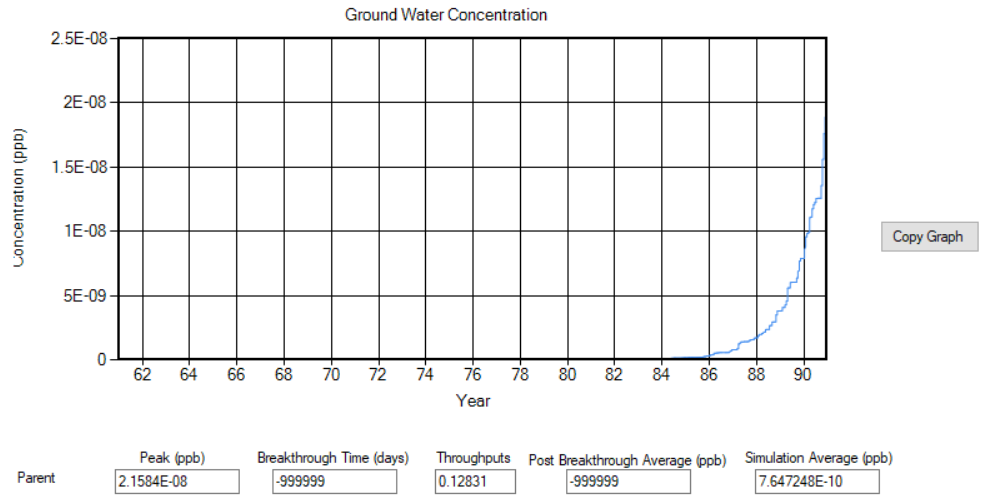
|  |  |
| --- | --- |
| Scenario | PAappleSTD\_V2 |
| Cropped Area Fraction | 1.0 |
| Koc (ml/g) | 12511 |
| Water Half-Life (days) @ 20 °C | 0 |
| Benthic Half-Life (days) @ 20 °C | 0 |
| Photolysis Half-Life (days) @ 40 °Lat | 0 |
| Hydrolysis Half-Life (days) | 0 |
| Soil Half-Life (days) @ 20 °C | 0 |
| Foliar Half-Life (days) | 3 |
| Molecular Weight | 760 |
| Vapor Pressure (torr) | 1.6e-7 |
| Solubility (mg/l) | 11.3 |
| Henry's Constant | 4e-3 |

**Table 3. Application Schedule for Spinotoram BTM Do Not Exceed.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Date (Mon/Day) | Type | Amount (kg/ha) | Eff. | Drift |
| 4/15 | Above Crop (Foliar) | 0.491 | 0.99 | 0.01 |

**Figure 1. Yearly Peak Concentrations**



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