# Mitigation Matrix in National NRCS Document

**Table 1:** IPM techniques for reducing pesticide environmental risk

| IPM techniques [1] | Mitigation index value [4] (by pesticide loss pathway) | | | | Function and performance criteria |
|---|---|---|---|---|---|
| | Leaching | Solution runoff | Adsorbed runoff | Drift | |
| Application timing—ambient temperature | | | | 5 | • Reduces exposure—spraying during cooler temperatures (e.g., early morning, evening or at night) can help reduce drift losses<br>• Avoid spraying in temperatures above 90 °F or label specific level |
| Application timing—rain | 15 | 15 | 15 | | • Reduces exposure—delaying application when significant rainfall events are forecast that could produce substantial leaching or runoff can reduce pesticide transport to ground and surface water |
| Application timing relative humidity | | | | 5 | • Reduces exposure—spraying when there is higher relative humidity reduces evaporation of water from spray droplets thus reducing drift losses |
| Application timing—wind | | | | 10 | • Reduces exposure—delaying application when wind speed is not optimal can reduce pesticide drift<br>• Optimal spray conditions for reducing drift occur when the air is slightly unstable with a very mild, steady wind between 2 and 9 miles per hour or label specific range |

**Table 2:** Conservation practices for reducing pesticide environmental risk

| Pesticide mitigation conservation practices [1,2] | Mitigation index value [4] (by pesticide loss pathway) | | | | Function and performance criteria |
|---|---|---|---|---|---|
| | Leaching | Solution runoff | Adsorbed runoff | Drift | |
| Alley Cropping (Code 311) | 5 | 5 | 10 | 10 | • Increases infiltration and uptake of subsurface water; reduces soil erosion; can provide habitat for beneficial insects, which can reduce the need for pesticides; also, can reduce pesticide drift to surface water |
| Anionic Polyacrylamide (PAM) Erosion Control (Code 450) | | 5 | 15 | | • Increases infiltration and deep percolation; reduces soil erosion |
| Bedding (Code 310) | 5 | 5 | 5 | | • Increases surface infiltration and aerobic pesticide degradation in the root zone |
| Conservation Cover (Code 327)[5] | 10 | 10 | 10 | | • Increases infiltration; reduces soil erosion; and builds soil organic matter in perennial cropping systems such as orchards, vineyards, berries, and nursery stock. Consider unintended impact of enhancing populations of soil pests. |


Tables from Agronomy Technical Note 5