

NEW BALANCE™ with Antifoam

pH Acidifier/Nonionic Surfactant

NEW BALANCE is a safe-to-use, citric-based pH acidifier and nonionic surfactant specifically designed to modify spray solution pH when breakdown from alkaline hydrolysis can reduce insecticide performance.

This is particularly important when organophosphate and carbamate insecticides are to be used such as guthion, parathion, malathion, carbaryl, and others.

Research indicates that water with a pH of 8.0–8.2 or higher will cause rather rapid degradation of these insecticides while in solution. Buffering effects occur while the insecticide is in the spray solution, from mixing, through storage in the tank and continues until the water has evaporated from the spray droplet lying on the leaf surface.

Features and Benefits

- Improves coverage of the spray solution on leaf surfaces.
- Lowers the pH of the spray water to prevent alkaline hydrolysis.
- Formulated with antifoam to prevent foaming.

Packaging

Six one-gallon containers.

Use Rates

| Solution pH Before | Oz./100 gallons Solution | Solution pH After |
|--------------------|--------------------------|-------------------|
| 8 | 0 | 8.0 |
| 8 | 8 | 5.7 |
| 8 | 16 | 4.5 |
| 8 | 24 | 4.0 |
| 8 | 32 | 3.6 |
| 8 | 40 | 3.4 |

University Recommendations for Buffering Insecticides

| Insecticide Product | Buffering Advised by University | Optimum pH | Half-Life for given pH | | | | | |
|---------------------|---------------------------------|------------|----------------------------------|----------|----------|----------|------------------|----------|
| | | | 9 | 8 | 7 | 6 | 5 | 4 |
| Di-Syston | × | 5.0 | 7.2 hours | | | 32 hours | 60 hours | |
| Dibrom | × | 5.0 | Hydrolyzed in 48 hours in pH > 7 | | | | | |
| Dimethoate/Digon | × | 5.0 | 48 min. | | | 12 hours | | 20 hours |
| Furadan | × | 5.0 | 78 hours | | | 8 hours | | |
| Guthion | × | 5.5 | 12 hours | | 10 days | | 17 days | |
| Imidan | × | 5.0 | | 4 hours | 12 hours | | | 13 days |
| Malathion | × | 5.0 | 5 hours | 19 hours | 3 days | 8 days | | |
| Monitor | × | 5.5 | Decomposes rapidly at pH > 7 | | | | | |
| Sevin (Carbaryl) | × | 7.0 | 24 hours | 2.5 days | 12 days | | | |
| Vydate | × | 5.0 | 3 hours | | 8 days | | Stable at 4.7 pH | |

Always use a pH meter or pH paper to verify the appropriate pH level has been achieved.



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Specialized Chemistry for Agriculture