**APPENDIX 1-2. Master Use Summary Table for Imidacloprid**

The label data used in this assessment were derived from the maximum application rates and minimum application retreatment intervals from the Preliminary Aquatic[[1]](#footnote-1) and Non-Pollinator Terrestrial Risk Assessments[[2]](#footnote-2) to Support Registration Review and addendum[[3]](#footnote-3), unless otherwise noted. The use summary table (UST) provided in **Table 1** provides the use information as further refined by EPA, for gathering the salient details for modelling the maximum use patterns. Use of this summary table is intended to be representative of all labeled uses of imidacloprid.

**Table 1. Imidacloprid Use Summary Table**

| ***Use Site*** | ***Application Parameters Per Crop Cycle “CC” (Rates Are Max in lb. a.i/A)*** | ***Max Combined Rate/CC*** ***(lb a.i/A) 5*** | ***Max*** ***No. of*** ***CC/Year 6*** |
| --- | --- | --- | --- |
| ***Method 1*** | ***Equipment (Description of Soil Applications) 2*** | ***Timing 3*** | ***Single*** | ***Number*** | ***Total*** | ***Min RTI 4*** |
| **Artichoke, Globe** | Soil | G (1a/7a) | ***Prior to or at planting*** up to 7 days of ***Harvest*** | 0.50 | 1 | 0.50 | N/A | 0.50 | 1 |
| Foliar | G or Air | ***After planting*** up to 7 days of ***Harvest*** | 0.125 | 4 | 0.50 | 14 days |
| **Banana and Plantain** | Soil | G (7a) | ***Anytime*** up to 7 days of ***Harvest*** | 0.50 | 1 | 0.50 | N/A | 0.50 | 1 |
| Foliar | AB | ***Anytime*** up to ***Harvest*** | 0.10 | 5 | 0.50 | 14 days |
| **Brassica (cole) Vegetables** | Soil | G (1a, 2, 3, 4a, 6a,7a) | ***At planting*** up to 14 days of ***Harvest*** | 0.38 | 1 | 0.38 | N/A | 0.50 | 3 |
| Foliar | G or Air | ***Anytime*** up to 7 days of ***Harvest*** | 0.05 | 5 | 0.25 | 5 days |
| **Bushberries** | Soil | G (7a, 8b) | ***After blooming*** up to 7 days of ***Harvest*** | 0.50 | 1 | 0.50 | N/A | 0.50 | 1 |
| Foliar | AB | ***After blooming*** up to 3 days of ***Harvest\**** | 0.10 | 5 | 0.50 | 7 days |
| **Caneberries** | Soil | G (6c, 7a) | ***After blooming*** up to 7 days of ***Harvest\**** | 0.50 | 1 | 0.50 | N/A | 0.50 | 1 |
| Foliar | AB | ***After blooming*** up to 3 days of ***Harvest*** | 0.10 | 3 | 0.30 | 7 days |
| **Citrus Fruits** | Soil | G (7c, 6b, 8a, 12, 13) | ***Anytime*** up to 7 days of ***Harvest*** | 0.50 | 1 | 0.50 | N/A | 0.50 | 1 |
| Foliar | AB | ***Anytime*** up to ***Harvest\**** | 0.25 | 2 | 0.50 | 10 days |
| **Bulb Vegetables** | Soil | G (1a, 2, 6, 7a) | ***Prior to or at planting*** up to 21 days of ***Harvest*** | 0.50 | 1 | 0.50 | N/A | 0.50 | 1 |
| Foliar | ***No Foliar Application*** |
| **Coffee** | Soil | G (4b, 6b & 7a) | ***Anytime*** up to 7 days of ***Harvest*** | 0.50 | 1 | 0.50 | N/A | 0.50 | 1 |
| Foliar | AB | ***Anytime*** up to 7 days of ***Harvest\**** | 0.10 | 5 | 0.50 | 7 days |
| **Cotton** | Soil | G (1a, 2, 7a) | **At planting** | 0.33 | 1 | 0.33 | N/A | 0.50 | 1 |
| Foliar | G or Air | ***Anytime*** up to 14 days of ***Harvest*** | 0.062 | 5 | 0.31 | 7 days |
| **Cranberries** | Soil | G (7b, 10) | ***Anytime*** up to 30 days of ***Harvest*** | 0.50 | 1 | 0.50 | N/A | 0.50 | 1 |
| Foliar | ***No Foliar Application*** |
| **Cucurbit Vegetables** | Soil | G (1a, 2, 3, 4a, 6a,7a) | ***At planting*** up to 21 days of ***Harvest*** | 0.38 | 1 | 0.38 | N/A | 0.38 | 1 |
| Foliar | ***No Foliar Application*** |
| **Fruiting Vegetables: Eggplant &Tomato** | Soil | G (1a, 2, 3, 4a, 6a,7a) | ***At planting*** up to 21 days of ***Harvest*** | 0.38 | 1 | 0.38 | N/A | 0.50 | 1 |
| Foliar | G or Air | ***After planting*** up to ***Harvest*** | 0.08 | 3 | 0.24 | 5 |
| **Fruiting Vegetables: Pepper and Okra** | Soil | G (1a, 2, 3, 4a, 6a,7a) | ***At planting*** up to 21 days of ***Harvest*** | 0.50 | 1 | 0.50 | N/A | 0.50 | 1 |
| Foliar | G or Air | ***After planting*** up to ***Harvest*** | 0.08 | 3 | 0.24 | 5 days |
| **Grapes** | Soil | G (4b, 6a, 7, 16) | ***Anytime*** up to 30 days of ***Harvest*** | 0.50 | 1 | 0.50 | N/A | 0.50 | 1 |
| Foliar | AB | ***Anytime*** up to ***Harvest*** | 0.05 | 2 | 0.10 | 14 days |
| **Herbs and Spices** | Soil | G (1b, 5, 6a, 7a | ***At planting*** up to 14 days of ***Harvest*** | 0.38 | 1 | 0.38 | N/A | 0.50 | 3 |
| Foliar | G or Air | ***After planting*** to 7 days of ***Harvest*** | 0.043 | 3 | 0.13 | 5 days |
| **Hops** | Soil | G (1a, 4b, 6a, 7a) | ***Anytime*** up to 60 days of ***Harvest*** | 0.30 | 1 | 0.30 | N/A | 0.50 | 1 |
| Foliar | G or Air | ***Anytime*** up to 28 days of ***Harvest*** | 0.10 | 3 | 0.30 | 21 days |
| **Leafy Green Vegetables** | Soil | G (1a, 2, 3, 4a, 6a,7a) | ***At planting*** up to 21 days of ***Harvest*** | 0.38 | 1 | 0.38 | N/A | 0.50 | 3 |
| Foliar | G or Air | ***After planting*** to 7 days of ***Harvest*** | 0.05 | 5 | 0.25 |  |
| **Leafy Petiole Vegetables** | Soil | G (1a, 2, 3, 4a, 6a,7a) | ***At planting*** up to 45 days of ***Harvest*** | 0.38 | 1 | 0.38 | N/A | 0.38 | 1 |
| Foliar | ***No Foliar Application*** |
| **Legume Vegetables Except Soybeans** | Soil | G (1a, 2, 3, 4a, 6a,7a) | ***At planting*** up to 21 days of ***Harvest*** | 0.38 | 1 | 0.38 | N/A | 0.50 | 3 |
| Foliar | G or Air | ***After planting*** 7 days of ***Harvest*** | 0.043 | 3 | 0.13 | 7 days |
| **Peanuts** | Soil | G (1a, 7a) | **At planting** |  |  |  |  | 0.50 | 1 |
| Foliar | G or Air | ***Emergence*** up to 14 days of ***Harvest*** | 0.043 | 3 | 0.13 | 5 days |
| **Pome Fruits: Pears** | Soil | G (7a) | ***Anytime*** up to 21 days of ***Harvest*** | 0.38 | 1 | 0.38 | N/A | 0.50 | 1 |
| Foliar | AB | ***Anytime*** up to 7 days of ***Harvest\**** | 0.25 | 2 | 0.50 | 10 days |
| **Pome Fruits: All others** | Soil | G (7a) | ***Anytime*** up to 21 days of ***Harvest*** |  |  |  |  | 0.50 | 1 |
| Foliar | AB | ***Anytime*** up to 7 days of ***Harvest\**** | 0.1 | 5 | 0.50 | 10 days |
| **Pomegranate** | Soil | G (7a) | ***Anytime*** up to 0 days of ***Harvest*** | 0.50 | 1 | 0.50 | N/A | 0.50 | 1 |
| Foliar | AB | ***Anytime*** up to 7 days of ***Harvest\**** |  |  |  |  |
| **Potato** | Soil | G (1a, 2, 3, 4a, 7a) | **At planting** | 0.31 | 1 | 0.31 | N/A | 0.50 | 1 |
| Foliar | G or Air | ***Emergence*** up to 7 days of ***Harvest*** | 0.05 | 4 | 0.20 | 7 days |
| **Root Vegetables, Except Sugarbeet** | Soil | G (1a, 2, 5 & 7a) | ***At planting*** up to 45 days of ***Harvest*** | 0.38 | 1 | 0.38 | N/A | 0.50 | 1 |
| Foliar | G or Air | ***After planting*** up to 7 days of ***Harvest*** | 0.044 | 3 | 0.13 | 5 days |
| **Soybeans** | Soil | ***No Soil Application*** | 0.50 | 1 |
| Foliar | G or Air | ***Stages:*** V2, R1 & R3 to 21 d. of ***Harvest*** | 0.047 | 3 | 0.14 | 7 days |
| **Stone Fruits: Apricot, Nectarine and Beach** | Soil | G (7a) | ***Anytime*** up to 21 days of ***Harvest*** | 0.38 | 1 | 0.38 | N/A | 0.50 | 1 |
| Foliar | AB | ***Anytime*** up to ***Harvest\**** | 0.10 | 3 | 0.30 | 7 days |
| **Stone Fruits: Cherries, Plums, Plumcot & Prunes** | Soil | G (7a) | ***Anytime*** up to 21 days of ***Harvest*** | 0.38 | 1 | 0.38 | N/A | 0.50 | 1 |
| Foliar | AB | ***Anytime*** up to 7 days of ***Harvest\**** | 0.10 | 5 | 0.50 | 10 days |
| **Strawberry (Annual Crop)** | Soil | G (7b, 9a, 9b, 14) | ***During transplant*** up to ***Bud opening/bloom*** | 0.50 | 1 | 0.50 | N/A | 0.50 | 3 |
| Foliar | G or Air | ***After planting*** up to 7 days of ***Harvest\**** | 0.047 | 3 | 0.14 | 5 days |
| **Strawberry (Perennial Crop)** | Soil | G (like annual but 7b, 9a are for post-harvest) | ***Post-harvest & During*** *growing season* | 0.38 | 1 | 0.38 | N/A | 0.50 | 3 |
| Foliar | G or Air | ***After planting*** up to 7 days of ***Harvest\**** | 0.047 | 3 | 0.14 | 5 days |
| **Tobacco** | Soil | G (1, 4a, 7a) | ***Prior to or at planting*** up to 14 days of ***Harvest*** | 0.042 | 12 | 0.50 | 7 day | 0.50 | 1 |
| Foliar | G or Air | ***Emergence*** up to 14 days of ***Harvest*** | 0.046 | 6 | 0.28 | 14 days |
| **Tree Nuts** | Soil | G (4b, 7a, 12, 14) | ***Anytime*** up to 7 days of ***Harvest*** | 0.50 | 1 | 0.50 | N/A | 0.50 | 1 |
| Foliar | AB | ***Anytime*** up to 7 days of ***Harvest\**** | 0.09 | 4 | 0.36 | 6 days |
| **Tropical and Sub-tropical Fruits** | Soil | G (7a) | ***Anytime*** up to 6 days of ***Harvest*** | 0.50 | 1 | 0.50 | N/A | 0.50 | 1 |
| Foliar | AB | ***Anytime*** up to 7 days of ***Harvest\**** | 0.10 | 5 | 0.50 | 10 days |
| **Tuberous and Corm Vegetables** | Soil | G (1c, 5, 11) | ***At planting*** up to 125 days of ***Harvest*** | 0.38 | 1 | 0.38 | N/A | 0.50 | 3 |
| Foliar | G or Air | ***After planting*** up to 7 days of ***Harvest*** | 0.044 | 3 | 0.13 | 5 days |

***1 Method:*** Application methods: Soil= Broadcast granules or liquid sprays incorporated into the soil; Foliar= Liquid spray into foliage. Hereunder, descriptions of the various types of soil applications: **(1) In-furrow spray** directed on or below seed: (a) During bedding; (b) During setting or transplant; (c) Over Hulis (plant material); and (d) During bedding immediately prior to planting or at the time of planting; **(2) Narrow Band Spray** (≤2”) directly below the eventual seed row during bedding Or over the seed-line incorporated to 1-2” by irrigation; **(3) Narrow Band Spray directly over the raw** covered with ≥ 3” of soil during Hilling; **(4) Subsurface side-dress:** (a) Sprayed on both sides of the row covered with ≥ 3” of soil or incorporated into the root-zone; and (b) Shanked/Injected on both sides of plants/ trees followed by irrigation within 48 hours; **(5) Shanked**-in 1 to 2” below seed depth; seed-line; or below Hulis; **(6) Drench:** (a) Transplant stage: Transplant water drench Or After transplant/seeding: Seeding or Hill drench; (b) For Trees: Basal soil drench into the base/around trees in sufficient water to insure incorporation into the entire root-zone followed by irrigation; and (c) For Caneberry: With 500 gal. solution/A; and **(7) Chemigation into root-zone** through low-pressure drip or trickle irrigation: (a) irrigation not specified; (b) With 600 to 1,000 gallons of water followed by 0.1 to 0.3” irrigation within 24 hours; and (c) On wetted soil followed by 10-20 minutes of additional irrigation. **(8) Soil surface spray in bands:**(a) On both sides of the tree within the drip-line area of the tree followed immediately with light sprinkler irrigation into the upper portion of the root-zone; and (b) On both sides of the row (18” band) to moist soil followed immediately by 0.5 to 1” of irrigation/rainfall within 24 hours; **(9) Soil-surface applications** in a minimum of 20 gallons of water/A followed by 0.25” of rainfall or irrigation water/A within 2 hours of application to incorporate product into root-zone: (a) Over-the-row band spray in Annual or Perennial crops; or (b) Raw band spray with width= width of anticipated fruiting bed in Perennial crops **(10) Soil Surface spray Directed to the root and crown area** with high volume of spray (20 gal) **(11) Side-dress** no later than 45 days after-planting; **(12) High-volume basal drench** to slightly moist soil surrounding the tree trunk. Applied in sufficient volume to penetrate the soil to a depth of 18 – 24” (for Termite control); **(13) Low-pressure chemigation or Soil surface band spray with irrigation** to ensure complete coverage of the root system (Nematode suppression); ***(14) Emitter or spot application*** in a minimum of 4 fluid ounces of mixture per emitter site

***2 Equipment:*** Application equipment: G= ground; AB= Airblast; Air= aerial.

***3 Timing:*** Application window specified by the label; Crops with \*= Foliar application is restricted from pre-bloom to end of bloom for pollinator protection

***4 Min RTI:*** Minimum retreatment intervals in days

***5 Max Combined Rate/CC:*** Maximum application rate for combined applications (e.g., seed+ soil+ foliar that can be applied per crop cycle

***6 Max No. of CC/Year:*** Maximum number of crop cycles per year to which applications are permitted

1. *Imidacloprid – Preliminary Aquatic Risk Assessment to Support the Registration Review of Imidacloprid*. DP 435477. Environmental Protection Agency, Office of Pesticide Programs, Environmental Fate and Effects Division, December 22, 2016. [↑](#footnote-ref-1)
2. *Imidacloprid – Transmittal of the Preliminary Terrestrial Risk Assessment to Support the Registration Review*. DP 442930. Environmental Protection Agency, Office of Pesticide Programs, Environmental Fate and Effects Division, November 28, 2017. [↑](#footnote-ref-2)
3. *Imidacloprid – Response to Public Comments Related to the Preliminary Risk Assessments and Addendum to the Non-Pollinator Risk Assessments in Support of Registration Review.* DP 447632. Environmental Protection Agency, Office of Pesticide Programs, Environmental Fate and Effects Division, January 08, 2020. [↑](#footnote-ref-3)