Bt

FRUIT & VEGETABLES

BIORATIONAL WINDOW targeted application

Directions for Use

CROP	PEST	RATE
Agricultural and Non-Agricultural Uses: Vegetables Fruits Vines Oilseeds Cereal Grains Herbs Tobacco Ornamentals Forestry Amenity Trees Turf	Lepidopteran larvae susceptible to DiPel, including: Armyworm (*Spodoptera* spp.) Cotton bollworm (*Helicoverpa armigera*) Native budworm (*Helicoverpa punctigera*) Cabbage moth (*Plutella xylostella*) Cabbage white butterfly (*Pieris rapae*) Green looper (*Chrysodeixis eriosoma*) Lightbrown apple moth (*Epiphyas postvittana*) Pear looper (*Ectropis excursaria*) Soybean looper (*Thysanoplusia orichalcea*) Vine moth (*Phalaenoides glycinae*, *Agarista agricola*) Tobacco looper (*Chrysodeixis argentifera*)	0.5 to 2.0 kg/ha Dilute Spraying (to the point of run-off) 25 to 100 g/100 L Concentrate Spraying 100 to 1000 g/100 L

Please refer to full label for critical comments.

Quality Formulations

DiPel comes from the company that has more experience with Bt insecticides than anyone else. This experience has led to continuous innovation in fermentation, formulation and application technology allowing the products to maintain their effectiveness in today's tough insect control environment.

The combination of experience and innovations means that the DiPel formulation is unequalled in terms of:

- Bioactivity
- Rainfastness
- Consistency of formulation
- Ease of application

Scan this QR code for more information about DiPel DF:

For further information contact:

SUMITOMO CHEMICAL

Sumitomo Chemical Australia Pty Ltd
Level 5, 51 Rawson Street, EPPING NSW 2121
ABN: 21 081 096 255
Phone: 02 8752 9000

OR

Sumitomo Chemical Australia Website
www.sumitomo-chem.com.au

OR

A Sumitomo Chemical Regional Sales Manager:

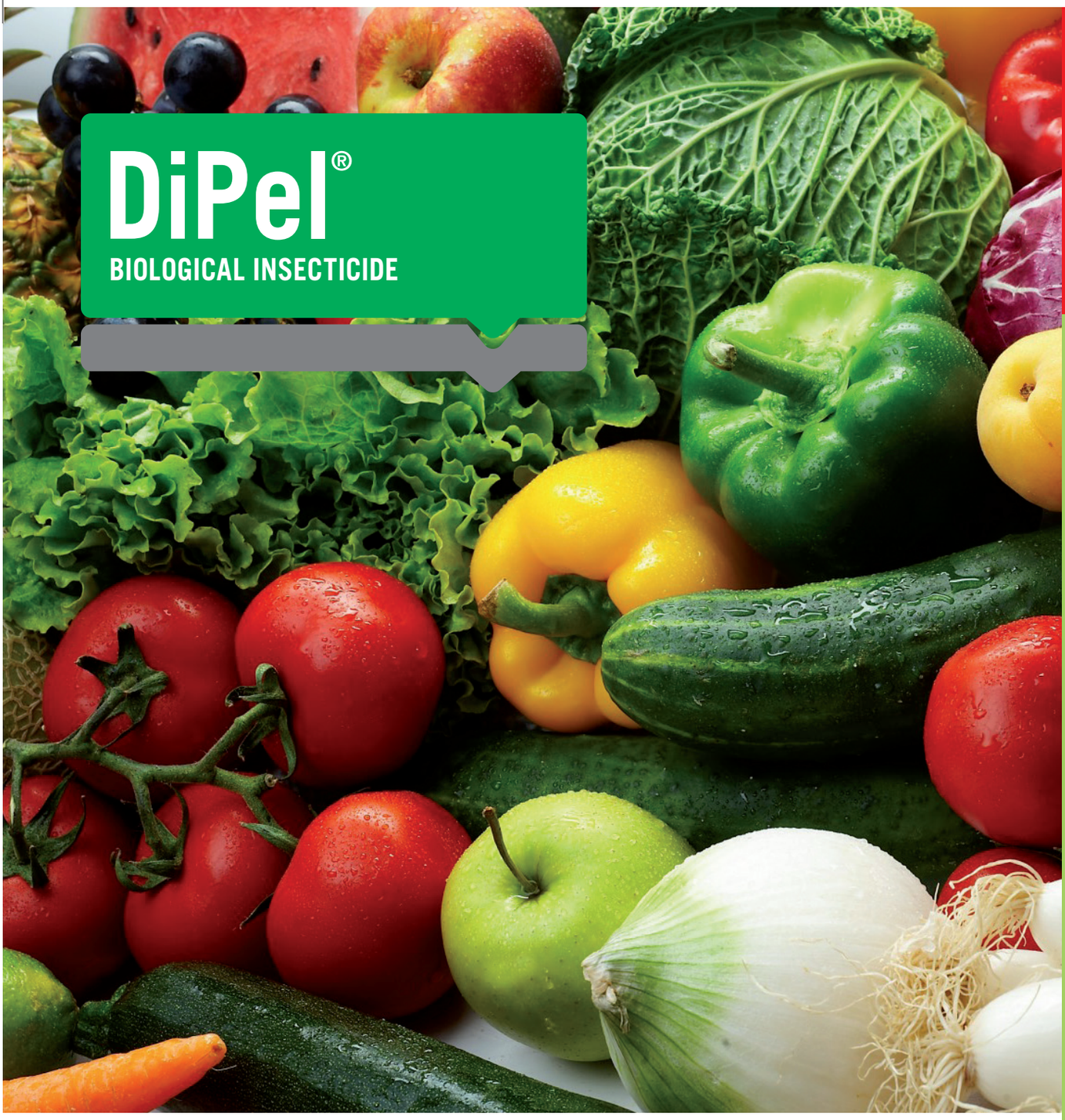
Andrew Franklin (North Queensland)	0408 063 371
Barry Kerr (East Victoria and Tasmania)	0418 681 891
Frank Galluccio (Western Victoria)	0418 502 466
Patrick Press (Queensland)	0417 085 160
Fiona Hill (South Australia)	0438 864 498
Imre Toth (Western Australia)	0429 105 381
Phil Glover (New South Wales)	0418 668 586
Charles McClintock (Southern New South Wales)	0429 004 290

VALENT BIOSCIENCES

Input for Organic Production
ACO CERT. NO. 10332

DiPel® BIOLOGICAL INSECTICIDE

Be Biorational



DiPel®

BIOLOGICAL INSECTICIDE

Bt

FRUIT & VEGETABLES

Resistance management rotation option

No re-entry Interval

No WHP, no residues

Safe to all beneficial insects

Stops feeding immediately

DiPel – Be Biorational

VALENT BIOSCIENCES

SUMITOMO CHEMICAL

Input for Organic Production
ACO CERT. NO. 10332

BIORATIONAL WINDOW

Bt

FRUIT & VEGETABLES

BIORATIONAL WINDOW targeted application

DiPel® is a dry flowable formulation containing live spores and endotoxin of *Bacillus thuringiensis* subsp. *Kurstaki* (Btk). As a Biological Insecticide DiPel not only presents as an ideal caterpillar control option but has a number of features specific to biological insecticides that make rational scientific and economic sense.


Lightbrown Apple Moth


Cabbage White Butterfly

BIO	RATIONAL
No Impact on beneficials	Additional pest control through natural predators
No Withholding Period	Spray up to harvest
No residues	More markets
No re-entry interval	Keeps workers working
No restriction on the number of sprays	Can be used for on-going spray programmes
Non-scheduled, non-poisonous	Operator safety
Organic	Opens new high value markets

- DiPel is highly effective against Lightbrown Apple Moth, Cabbage White Butterfly, helicoverpa, Looper, Vine moth and a wide range of caterpillars.
- Early season biorational window provides high efficacy against young instars and is safe to beneficials allowing natural predators to continue protecting crops.
- Mid season, the biorational window provides strong resistance management benefits while offering no re-entry interval for workers.
- Late season, DiPel can be used right up until harvest as it has no WHP and no residues.

DiPel®
BIOLOGICAL INSECTICIDE

Be Biorational

Biorational Window Seasons

EARLY SEASON ↓

SAFE TO BENEFICIALS
DiPel is safe to all beneficial insects. Applying early in the season allows natural predators to continue to assist in controlling pest populations.

STOPS FEEDING IMMEDIATELY
DiPel causes insects to stop feeding immediately meaning no further damage to crops. During the early season pest populations are in their early stages. Young instars are concentrated and relatively immobile which is when DiPel is especially effective.

MID SEASON ↓

RESISTANCE MANAGEMENT
Many recent chemistry introductions to the market, whilst offering good benefits, belong to the same mode of action group. Resistance management is all about rotating chemistries. DiPel offers different mode of action and a great option in the spraying program.

ENVIRONMENTAL SAFETY
Sustainability is a key watchword for growers, shippers, and marketers of high quality produce. DiPel is highly specific and that translates into low-impact products.
They have no re-entry interval, no WHP and are non-scheduled, non-poisonous product.
As Australian Organic Registered Farm Input they can assist growers in opening new high value markets and is a perfect solution for sustainability-minded growers.

LATE SEASON

HARVEST MANAGEMENT
An entire season's worth of time and investment comes down to maintaining quality at harvest time. DiPel can be used right up until harvest providing growers with an effective tool at a critical stage of production and granting flexibility without sacrificing quality.

RESIDUE MANAGEMENT
DiPel provides a premier management tool for fruit and vegetable growers. Exempt from residue tolerance, use of Bts for late season applications is a critical part of the production cycle whenever Maximum Residue Limits are an issue. DiPel provides effective control while helping growers and brokers avoid crop rejection problems with buyers.

Getting the Best from DiPel

There are some very straightforward ways of ensuring you get the maximum benefits from DiPel and XenTari®.

- Ensure water pH is less than 8 as high pH level may reduce efficacy.
- Use a surfactant at label rates and a high water rate to ensure good coverage. Feeding attractants may also improve the intake of DiPel DF however good coverage is critical.
- Avoid rain or irrigation for 24 hours after spraying.
- To reduce the impact of UV breakdown spray after 4pm. Good results have been achieved by growers spraying at night.
- Careful monitoring of pests and beneficial insect levels is important. Knowing what pest pressure you have and what stage they are up to is important in knowing when to spray and how often.
- Spraying at egg hatch is most effective. The smaller instars of the key caterpillar pests are significantly easier to control than large instars. Additionally, the large instars have already caused damage to the crop.
- To maintain beneficial insects ensure other products used in the spray program have a low impact on beneficials, ensure hard chemicals like pyrethroids are not used on the same or adjacent fields and ensure tank lines are cleaned after the use of other pesticides.