

**Special Provisions**  
2024 and Succeeding Crop Years

Year: 2024	Commodity: Nursery (FG&C) (0073)	State: Texas (48)
Date: 12/21/2022	Plan: Dollar Amount Of Insurance (50)	County: Goliad (175)

**Program Dates for Insurable Types and Practices**

<b>Sales Closing Date</b> 5/1/2023	<b>Earliest Planting Date</b>	<b>Final Planting Date</b>	<b>End of Late Planting Period Date</b>	<b>Acreage Reporting Date</b>	<b>Premium Billing Date</b> 3/1/2024	<b>End of Insurance Date</b> 5/31/2024
---------------------------------------	-------------------------------	----------------------------	---	-------------------------------	---	---

TP	Type	Practice
T/P 01	Coniferous Evergreen Trees 058 *15 *16	Container 008 *15
T/P 02	Coniferous Evergreen Trees 058 *16	Field Grown 007
T/P 03	Fruit And Nut Trees 059 *15 *16	Container 008 *15
T/P 04	Fruit And Nut Trees 059 *16	Field Grown 007
T/P 05	Deciduous Shrubs 060 *15 *16	Container 008 *15
T/P 06	Deciduous Shrubs 060 *16	Field Grown 007
T/P 07	Coniferous Evergreen Shrubs 062 *15 *16	Container 008 *15
T/P 08	Coniferous Evergreen Shrubs 062 *16	Field Grown 007
T/P 09	Roses 065 *15 *16	Container 008 *15
T/P 10	Roses 065 *16	Field Grown 007
T/P 11	Ground Cover And Vines 066 *15 *16	Container 008 *15
T/P 12	Ground Cover And Vines 066 *16	Field Grown 007
T/P 13	Annuals 067 *15 *16	Container 008 *15
T/P 14	Foliage 068 *15 *16	Container 008 *15
T/P 15	Foliage 068 *16	Field Grown 007
T/P 16	Palms And Cycads 070 *15 *16	Container 008 *15
T/P 17	Palms And Cycads 070 *16	Field Grown 007
T/P 18	Liners 071 *15 *16	Container 008 *15
T/P 19	Broadleaf Evergreen Shrubs 061 *15 *16	Container 008 *15
T/P 20	Broadleaf Evergreen Shrubs 061 *16	Field Grown 007

**Special Provisions**  
2024 and Succeeding Crop Years

Year: 2024      Commodity: Nursery (FG&C) (0073)      State: Texas (48)  
Date: 12/21/2022      Plan: Dollar Amount Of Insurance (50)      County: Goliad (175)

TP	Type	Practice
T/P 21	Deciduous Trees(Shade,Flower) 056 *15 *16	Container 008 *15
T/P 22	Deciduous Trees(Shade,Flower) 056 *16	Field Grown 007
T/P 23	Broadleaf Evergreen Trees 057 *15 *16	Container 008 *15
T/P 24	Broadleaf Evergreen Trees 057 *16	Field Grown 007
T/P 25	Small Fruits 063 *15 *16	Container 008 *15
T/P 26	Small Fruits 063 *16	Field Grown 007
T/P 27	Herbaceous Perennials 064 *15 *16	Container 008 *15
T/P 28	Coniferous Evergreen Trees 058 *15 *16	Container(OC) 767 *15
T/P 29	Coniferous Evergreen Trees 058 *16	Field Grown(OC) 765
T/P 30	Fruit And Nut Trees 059 *15 *16	Container(OC) 767 *15
T/P 31	Fruit And Nut Trees 059 *16	Field Grown(OC) 765
T/P 32	Deciduous Shrubs 060 *15 *16	Container(OC) 767 *15
T/P 33	Deciduous Shrubs 060 *16	Field Grown(OC) 765
T/P 34	Coniferous Evergreen Shrubs 062 *15 *16	Container(OC) 767 *15
T/P 35	Coniferous Evergreen Shrubs 062 *16	Field Grown(OC) 765
T/P 36	Roses 065 *15 *16	Container(OC) 767 *15
T/P 37	Roses 065 *16	Field Grown(OC) 765
T/P 38	Ground Cover And Vines 066 *15 *16	Container(OC) 767 *15
T/P 39	Ground Cover And Vines 066 *16	Field Grown(OC) 765
T/P 40	Annuals 067 *15 *16	Container(OC) 767 *15
T/P 41	Foliage 068 *15 *16	Container(OC) 767 *15
T/P 42	Foliage 068 *16	Field Grown(OC) 765
T/P 43	Palms And Cycads 070 *15 *16	Container(OC) 767 *15

## Special Provisions

2024 and Succeeding Crop Years

Year: 2024

Commodity: Nursery (FG&C) (0073)

State: Texas (48)

Date: 12/21/2022

Plan: Dollar Amount Of Insurance (50)

County: Goliad (175)

TP	Type	Practice
T/P 44	Palms And Cycads 070 *16	Field Grown(OC) 765
T/P 45	Liners 071 *15 *16	Container(OC) 767 *15
T/P 46	Broadleaf Evergreen Shrubs 061 *15 *16	Container(OC) 767 *15
T/P 47	Broadleaf Evergreen Shrubs 061 *16	Field Grown(OC) 765
T/P 48	Deciduous Trees(Shade,Flower) 056 *15 *16	Container(OC) 767 *15
T/P 49	Deciduous Trees(Shade,Flower) 056 *16	Field Grown(OC) 765
T/P 50	Broadleaf Evergreen Trees 057 *15 *16	Container(OC) 767 *15
T/P 51	Broadleaf Evergreen Trees 057 *16	Field Grown(OC) 765
T/P 52	Small Fruits 063 *15 *16	Container(OC) 767 *15
T/P 53	Small Fruits 063 *16	Field Grown(OC) 765
T/P 54	Herbaceous Perennials 064 *15 *16	Container(OC) 767 *15
T/P 55	Coniferous Evergreen Trees 058 *15 *16	Container(OT) 768 *15
T/P 56	Coniferous Evergreen Trees 058 *16	Field Grown(OT) 766
T/P 57	Fruit And Nut Trees 059 *15 *16	Container(OT) 768 *15
T/P 58	Fruit And Nut Trees 059 *16	Field Grown(OT) 766
T/P 59	Deciduous Shrubs 060 *15 *16	Container(OT) 768 *15
T/P 60	Deciduous Shrubs 060 *16	Field Grown(OT) 766
T/P 61	Coniferous Evergreen Shrubs 062 *15 *16	Container(OT) 768 *15
T/P 62	Coniferous Evergreen Shrubs 062 *16	Field Grown(OT) 766
T/P 63	Roses 065 *15 *16	Container(OT) 768 *15
T/P 64	Roses 065 *16	Field Grown(OT) 766
T/P 65	Ground Cover And Vines 066 *15 *16	Container(OT) 768 *15
T/P 66	Ground Cover And Vines 066 *16	Field Grown(OT) 766

## Special Provisions

2024 and Succeeding Crop Years

Year: 2024	Commodity: Nursery (FG&C) (0073)	State: Texas (48)
Date: 12/21/2022	Plan: Dollar Amount Of Insurance (50)	County: Goliad (175)

TP	Type	Practice
T/P 67	Annuals 067 *15 *16	Container(OT) 768 *15
T/P 68	Foliage 068 *15 *16	Container(OT) 768 *15
T/P 69	Foliage 068 *16	Field Grown(OT) 766
T/P 70	Palms And Cycads 070 *15 *16	Container(OT) 768 *15
T/P 71	Palms And Cycads 070 *16	Field Grown(OT) 766
T/P 72	Liners 071 *15 *16	Container(OT) 768 *15
T/P 73	Broadleaf Evergreen Shrubs 061 *15 *16	Container(OT) 768 *15
T/P 74	Broadleaf Evergreen Shrubs 061 *16	Field Grown(OT) 766
T/P 75	Deciduous Trees(Shade,Flower) 056 *15 *16	Container(OT) 768 *15
T/P 76	Deciduous Trees(Shade,Flower) 056 *16	Field Grown(OT) 766
T/P 77	Broadleaf Evergreen Trees 057 *15 *16	Container(OT) 768 *15
T/P 78	Broadleaf Evergreen Trees 057 *16	Field Grown(OT) 766
T/P 79	Small Fruits 063 *15 *16	Container(OT) 768 *15
T/P 80	Small Fruits 063 *16	Field Grown(OT) 766
T/P 81	Herbaceous Perennials 064 *15 *16	Container(OT) 768 *15

### Statement

#### General

The insurable value of damaged plants that are accepted for coverage and will fully recover at some time after the loss occurrence is calculated as follows:

1. Determine the number of months that was required for the plant to reach the stage of growth at which damage occurred;
2. Determine the number of months that will be required for the plant to recover to the stage of growth at which damage occurred;
3. Divide the results of number 2 by the results of number 1;
4. Subtract the results of number 3 from 1.00; and
5. Multiply the results of number 4 by the insurable plant price.

**Special Provisions**  
**2024 and Succeeding Crop Years**

Year: 2024	Commodity: Nursery (FG&C) (0073)	State: Texas (48)
Date: 12/21/2022	Plan: Dollar Amount Of Insurance (50)	County: Goliad (175)

**MISSING SIZES** - If at any time while determining the inventory or loss values in the nursery, it is determined the size of a plant is not listed in your nursery catalog or price list, but the genus, species, subspecies, variety or cultivar is listed in the nursery catalog or price list, the wholesale price for the missing plant size will be determined using the lower of the price determined from the calculation listed below or the price in the EPL/PPS, unless the plant is endorsed under the Nursery Grower's Price Endorsement (NGPE). If the plant is endorsed under the NGPE and the calculated wholesale price for the missing plant size determined in (a) or (b) below is greater than the EPL/PPS price, then the price used for insurance purposes is the calculated wholesale price, not the EPL/PPS price.

- (a) When only one plant size listed in the catalog or price list is nearest to the size of the missing plant, calculate the proration factor using the calculation listed below:
- (i) Divide the price from the nursery catalog or price list or the upgraded plant price, if the NGPE is elected, for the plant at the nearest size to the size of the missing plant by the price in the EPL/PPS for the same-sized plant as shown in the nursery catalog or price list to determine a proration factor (rounded to three decimal places); and
  - (ii) Multiply the EPL/PPS price that corresponds to the size of the missing plant by the proration factor.

For example: Your nursery catalog has an Agastache 'Firebird' listed in a 3-gallon container. At the time of loss, the Agastache 'Firebird' is growing in a 2-gallon container. Your nursery catalog price for a 3-gallon Agastache 'Firebird' is \$12.00; a price for a 2-gallon size is not listed. The EPL/PPS 3-gallon Agastache 'Firebird' price is \$15.00 and the EPL/PPS 2-gallon Agastache 'Firebird' price is \$9.00. The wholesale price for the missing plant size will be \$7.20 ( $\$12.00 \text{ nursery catalog price} / \$15.00 \text{ EPL/PPS price} = .800 \text{ proration factor} \times \$9.00 \text{ EPL/PPS price}$ ).

- (b) When there are two plant sizes listed in the nursery catalog or price list equally distant to the size of the missing plant, calculate the proration factor using the calculation listed below:
- (i) Add the two equally-distant prices from the nursery catalog or price list or add the two upgraded plant prices, if the NGPE is elected;
  - (ii) Add the two equally-distant prices from the EPL/PPS;
  - (iii) Divide the result of (i) the sum of the two prices, or two upgraded plant prices, from the nursery catalog or price list for the plant at the nearest sizes to the size of the missing plant by the result of (ii) the sum of the two prices in the EPL/PPS for the same-sized plant to determine a proration factor (rounded to three decimal places);
  - (iv) Multiply the EPL/PPS price that corresponds to the size of the missing plant by (iii) the proration factor to create the missing catalog or price list price.

For example: Your nursery catalog has an Agastache 'Firebird' listed in a 1-gallon and in a 3-gallon container. At the time of loss, the Agastache 'Firebird' is growing in a 2-gallon container. Your nursery catalog lists a price for a 1-gallon Agastache 'Firebird' at \$6.00 and a price for a 3-gallon Agastache 'Firebird' at \$12.00. A price for a 2-gallon Agastache 'Firebird' is not listed. The EPL/PPS 1-gallon Agastache 'Firebird' price is \$7.00, the EPL/PPS 2-gallon Agastache 'Firebird' price is \$9.00, and the EPL/PPS 3-gallon Agastache 'Firebird' price is \$15.00. The wholesale price for the missing plant size will be \$7.36 ( $(\$6.00 + \$12.00) = \$18.00 \text{ nursery catalog price} / (\$7.00 + \$15.00) = \$22.00 \text{ EPL/PPS price} = .818 \text{ proration factor} \times \$9.00 \text{ EPL/PPS price}$ ).

NOTE:

## Special Provisions 2024 and Succeeding Crop Years

Year: 2024	Commodity: Nursery (FG&C) (0073)	State: Texas (48)
Date: 12/21/2022	Plan: Dollar Amount Of Insurance (50)	County: Goliad (175)

- (1) When calculating the price for a missing liner size, only compare the missing size to other liner sizes. For example, 1) if the missing liner size is 72-200 cells/tray, the nearest size is 37-71 cells/tray ("equally-distant" does not apply); 2) if the missing liner size is 37-71 cells/tray, the two equally-distant sizes are 72-200 cells/tray and <3" - 36 cells/tray; and 3) if the missing liner size is <3" - 36 cells/tray, the nearest size is 37-71 cells/tray ("equally distant" does not apply).
- (2) When calculating the price for a missing Pot size, calculate the price based on (a) above, as there will not be two equally-distant prices as stated in (b). The nearest size to the missing Pot size is the next larger size listed in the catalog.

**UNREPORTED PLANT TYPES** - For each insured practice, you must insure and report on the PIVR, the value of all insurable plants/plant types in each unit, whether you elect basic units by share or plant type. For over-report and under-report situations, any unreported plants/plant types will not be insured. Additionally, for under-report situations, to determine the under-report factor for the reported plant types, we will calculate field market value A for each unreported plant type and assign the value proportionately to each reported plant type in the same practice. The plants in each unreported plant type will be listed as undamaged in the Appraisal Worksheet.

If you can prove through purchase receipts that you acquired new plants/plant types after submitting your initial PIVR that were not contained in the nursery catalog or price list provided for the crop year, you must submit a revised nursery catalog or price list in accordance with section 6(k) of the Nursery Crop Provisions and a revised PIVR, if applicable. The new plants/plant types will not be insurable until 30 days after such nursery catalog or price list is received by us.

**OMITTED PLANTS** - Any plant, meeting all insurability requirements, grown in your nursery that is not listed (by either the botanical or common name) in your nursery catalog/price list will be uninsurable for the crop year but the value of such plants, as determined using the Eligible Plant List and Plant Price Schedule (EPL/PPS) in accordance with section 6(e) of the Nursery Crop Provisions, will be used in determining field market value B. This will also apply if the plant is listed in your nursery catalog/price list but there is not a corresponding price. If your nursery catalog/price list is not updated on an annual basis, you must submit a supplement to the nursery catalog/price list on or before the sales closing date. The supplement must be in accordance with section 6(k) of the Nursery Crop Provisions. If you can prove through purchase receipts that you acquired new plants after submitting your initial PIVR that were not contained in the nursery catalog/price list provided for the crop year, you must submit a revised nursery catalog/price list in accordance with section 6(k) of the Nursery Crop Provisions and a revised PIVR, if applicable.

If you have plants in your nursery that are not yet available for sale and they are not included in your nursery catalog/price list, you must submit a supplement to the nursery catalog/price list and a revised PIVR, if applicable. At a minimum, the supplement must

- “ Be typewritten and legible;
- “ Show an issue date or effective date on the cover page (may be handwritten);
- “ Contain the name, address, and phone number of your nursery;
- “ Be intended for use in the sale of your plants once they are available for sale;

## Special Provisions

### 2024 and Succeeding Crop Years

Year: 2024	Commodity: Nursery (FG&C) (0073)	State: Texas (48)
Date: 12/21/2022	Plan: Dollar Amount Of Insurance (50)	County: Goliad (175)

“ List each plant's name (scientific or common), plant size, and wholesale price.

The plants for which the revised nursery catalog/price list or supplement is submitted will not be insurable until 30 days after the revised nursery catalog/price list or supplement is received by us. The revised nursery catalog/price list or supplement will only be used for the purpose of pricing 1) new plants introduced into the nursery after the original submission of the nursery catalog/price list and 2) plants not yet available for sale and not listed in the original submission of the nursery catalog/price list. No other plant prices in the revised nursery catalog/price list or supplement will be accepted.

The survival factor for liners is .90.

The plant height determined under the high/wide measurement pricing method will not include the height of the root ball for balled-and-burlapped plants.

The Eligible Plant List and Plant Price Schedule is a component of the actuarial information.

**PROHIBITED PLANTS** - Any plant classified by a state or county as illegal to grow or sell in the county in which the nursery is located is uninsurable, even if listed in the Eligible Plant List and Plant Price Schedule or otherwise qualifying as insurable. For example, growing or selling plants classified as invasive species is illegal in many states and counties. No indemnity will be paid on any such plant.

**REQUIRED PIVR REVISIONS** - If during any inspection of your nursery or during the settlement of a claim, we determine that prohibited plants are being grown or held for sale, we will reduce the inventory value of any affected unit by the lesser of the value of the prohibited plants or the maximum amount possible that will not leave the under-report factor for the unit below 1.00.

Plant (including field grown), container, or liner sizes smaller than the smallest size listed for plants (including field grown), containers or liners on the Eligible Plant List and Plant Price Schedule are not insurable. Do not round up to meet the minimum size requirement for plants (including field grown), containers, or liners.

Leaf drop without death of the twigs, branches or stems is considered a normal response to cold and will not be considered as basis for a claim for all cultivars of *Ficus benjamina*, *Ficus retusa*, and *Hibiscus rosa-sinensis*; all species and cultivars of *Ixora*; and any genus, species, and cultivars of deciduous trees. Death of the twigs, branches or stems is minimally required as a basis for claim.

Leaf drop without death of the twigs, branches or stems from excess moisture will not be considered as a basis for a claim for all species and cultivars of *Bougainvillea*. Death of the twigs, branches or stems is minimally required as a basis for claim.

In addition to section 1 of the Nursery Crop Provisions, the definition of standard nursery containers will include: (a) herbaceous perennial (HP) plants that are grown in the field in containers without a bottom in a manner that allows the plants' roots to grow into the ground, and (b) for all other plant types, containers without a bottom that are placed on a barrier that will not permit the plants' roots, other than fibrous roots, to grow into the ground.

**Special Provisions**  
**2024 and Succeeding Crop Years**

Year: 2024	Commodity: Nursery (FG&C) (0073)	State: Texas (48)
Date: 12/21/2022	Plan: Dollar Amount Of Insurance (50)	County: Goliad (175)

For field grown plants, measured sizes between those listed on the Eligible Plant List and Plant Price Schedule will be rounded to the nearest size to determine the price.

Contact your agent regarding possible premium discounts, options, and/or additional coverage that may be available.

\*15 Container sizes are determined on an actual volume basis for purposes of determining the price of the plant on the Eligible Plant Listing and Plant Price Schedule (EPL/PPS). The FCIC container sizes and volumes are shown below:



**Special Provisions**  
**2024 and Succeeding Crop Years**

Year: 2024      Commodity: Nursery (FG&C) (0073)      State: Texas (48)  
 Date: 12/21/2022      Plan: Dollar Amount Of Insurance (50)      County: Goliad (175)

FCIC	GALLON MEASUREMENT		CUBIC INCH EQUIVALENT		INCLUDES
SIZE					STANDARD
NAME	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	ANSI CLASS
POT	0.038	0.19	8.78	46.19	SP3
1 quart	0.2	0.39	46.2	92.39	SP4
2 quart	0.4	0.59	92.4	138.59	SP5
1 gallon	0.6	1.37	138.6	318.77	1
2 gallon	1.38	2.49	318.78	577.49	2
3 gallon	2.5	3.39	577.5	785.39	3
5 gallon	3.4	5.77	785.4	1335.17	5
7 gallon	5.78	8.49	1335.18	1963.49	7
10 gallon	8.5	11.97	1963.5	2767.37	10
15 gallon	11.98	17.49	2767.38	4042.49	15
20 gallon	17.5	22.49	4042.5	5197.49	20
25 gallon	22.5	29.79	5197.5	6883.79	25
30 gallon	29.8	32.49	6883.8	7507.49	N/A
35 gallon	32.5	37.49	7507.5	8662.49	N/A
40 gallon	37.5	42.49	8662.5	9817.49	N/A
45 gallon	42.5	47.49	9817.5	10972.49	45
50 gallon	47.5	52.49	10972.5	12127.49	N/A
55 gallon	52.5	57.49	12,127.50	13,282.49	N/A
60 gallon	57.5	62.49	13,282.50	14,437.49	N/A
65 gallon	62.5	67.49	14,437.50	15,592.49	65
70 gallon	67.5	72.49	15,592.50	16,747.49	N/A
75 gallon	72.5	77.49	16,747.50	17,902.49	N/A
80 gallon	77.5	82.49	17,902.50	19,057.49	N/A
85 gallon	82.5	87.49	19,057.50	20,212.49	N/A
90 gallon	87.5	92.49	20,212.50	21,367.49	N/A
95 gallon	92.5	97.49	21,367.50	22,522.49	95/100
100 gallon	97.5	124.49	22,522.50	28,759.49	N/A
150 gallon	124.5	174.49	28,759.50	40,309.49	N/A
200 gallon	174.5	224.49	40,309.50	51,859.49	N/A
250 gallon	224.5	274.49	51,859.49	63,409.49	N/A
300 gallon	274.5	324.49	63,409.50	74,958.00	N/A

## Special Provisions

### 2024 and Succeeding Crop Years

Year: 2024	Commodity: Nursery (FG&C) (0073)	State: Texas (48)
Date: 12/21/2022	Plan: Dollar Amount Of Insurance (50)	County: Goliad (175)

- \*16 In accordance with section 10(c)(1) of the Crop Provisions, viral infection of orchids is a covered cause of loss provided that the infected plants exhibit explicit physical symptoms of the disease (e.g., color break of flowers, ring-spot lesions, etc.). Additionally, in accordance with section 10(c)(5), asymptomatic plants for which the only damage is failure to grow to an expected size or failure to produce an expected number of flowers will not be considered damaged by an insurable cause of loss.

#### Price

See the Eligible Plant List and Plant Price Schedule for cold storage requirements, hardiness zone requirements, and procedure for pricing unlisted plant cultivars of a listed plant genus, species, or variety.

A plant that is priced on the Eligible Plant List and Plant Price Schedule under both the high/wide and caliper measurement methods will be valued for insurance purposes based on the lowest wholesale price for the measurement method contained in the insured's wholesale catalog or price list; however, such price may not exceed the maximum price limit for the plant on the Eligible Plant List and Plant Price Schedule for the same measurement method.

#### Insurance Availability

When the number of months for a partially damaged plant to reach full recovery is equal to or greater than the FMV A stage of growth (in months) of the damaged plant, then the plant is considered destroyed (zero value) and is no longer insurable.

In order to be eligible for insurance coverage against flooding, all *Spathiphyllum* species and cultivars must be grown on benches or in some other way raised a minimum of 4" off the ground.

All species and cultivars of *Crocus*, *Iris*, *Narcissus*, *Tulipa*, and *Hyacinthus* are insurable only after they are removed from cold storage, have broken dormancy, and are placed in the greenhouse (mandatory storage structure). The roots must be established and at least one inch of shoot growth must be visible for insurability.

In accordance with section 8(b), (i) and (j) of the Crop Provisions, industrial hemp (*Cannabis sativa* L.), as defined in the Agricultural Marketing Act of 1946 (7 U.S.C. 1621 et seq.), is the only *Cannabis* species insurable under this policy and only when grown in accordance with the regulations governing industrial hemp production on the land the industrial hemp is produced, when grown and sold with the root system attached and are not stock plants or plants being grown solely for harvest of buds, flowers, or greenery. You must comply with all applicable Federal regulations and any applicable state or tribal laws. Regardless of state or tribal law, the sale of hemp with a THC level greater than 0.3 percent will be considered the sale of a controlled substance. Controlled substances are not insurable. If the industrial hemp is produced in a state or tribal territory which has assumed regulatory responsibility for hemp production, you must comply with all requirements and provisions of the regulatory plan of that state or tribe and possess any license required by that plan. Industrial hemp must be produced using seed or plant cuttings adapted and appropriate for the intended use (for example, if planting industrial hemp to be harvested primarily for fiber, the seed must be adapted to fiber production). Industrial hemp that is unsalable or destroyed due to a delta-9 tetrahydrocannabinol (THC) level that exceeds 0.3 percent will be considered damaged due to uninsurable causes. You must notify us prior to destroying the industrial hemp, in accordance with section 11(a)(1) of the Crop Provisions.