

ENVIRONMENTAL ASSESSMENT REGISTRATION

Agriculture Family Farm
(Forage/Hay & Root Crops)

Wooddale, near Bishops Falls
(AOI 29 WOODDALE EAST)

Submitted By: Jeff Lingard

April, 2020

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1.0 NAME OF THE UNDERTAKING

Lingard Family Farm

2.0 PROPONENT

(i) Name of Corporate Body

83992 Newfoundland & Labrador Inc.

(ii) Address

10 Main St, Bishop's Falls, NL A0H 1C0

(iii) Chief Executive Officer

Name: Jeff Lingard
Official Title: Founder/ CEO
Address: 10 Main St, Bishop's Falls, NL A0H 1C0
Telephone No: 709-293-4070
Email: jefflingard83@gmail.com

(iv) Principal Contact Person for purposes of environmental assessment

Name: Jeff Lingard
Official Title: Project Lead
Address: 10 Main St, Bishop's Falls, NL A0H 1C0
Telephone No.: 709-293-4070
E-mail : jefflingard83@gmail.com

3.0 THE UNDERTAKING

(i) Name of Undertaking

Lingard Family Farm (83992 Newfoundland & Labrador Inc.)

(ii) Purpose/Rationale/Need for Undertaking

To establish a viable family farm in conjunction with Phillip Lingard's current operation. The proposed expansion of operation will be producing forage/hay and cole crops, as well as raising bees for local pollination and honey production. This venture will create local employment opportunities for the community.

4.0 DESCRIPTION OF UNDERTAKING

(i) Geographical Location

A01-29 Crown Land, Lot 20, North of Peter's River, Wooddale East, Bishop Falls, Newfoundland and Labrador, A0G 2A0

North: The property is bound to the north by Recon Industries

East: The property is bound to the east by Recon Industries and Crown Land

South: The property is bound to the south by Crown Land

West: The property is bound to the north by Shawn Dyke and Crown Land

83992 Newfoundland & Labrador Inc. is within the proper zoning regulations. AGRICULTURAL See Zoning map attached.

Refer to Appendix A

(ii) Physical Features

a.) Proposed Undertaking:

Lot #20 is a 149 ha parcel of land located north of Peter's River in Wooddale East, Bishop Falls, NL. The plot is currently zoned for agricultural land use and would be surveyed for two separate parcels totalling 104.3 ha of useable agricultural land. Phase 1 of the west parcel is scheduled for development to begin in August or September 2020 following the bird nesting period and the required approval. See **Figure 4** in **Appendix A**.

The proposed development will not require the construction of permanent structures on the property. The entire converted land will be used for crop production and the growth of forage (hay). Cole crops are plants that belong to the mustard (Brassica) family and are all descendants of wild cabbage. As a group these plants grow better in cool weather. The following is a list of the most common of these plants: Brussel sprout, cabbage,

cauliflower, collards, kale, kohlrabi, mustard, broccoli, turnip, and watercress. The crop yield will be transported off site to be processed at the existing Lingard Farm also located in Wooddale.

Strategically harvested trees will be used to stock pile lumber that could be used for fire wood for personal use or for sale. Local contractors will be employed in the clearing stage. The remaining biomass will be chipped on site and used for mulch or compost.

In spring 2021, the cleared portion of land in the west parcel will be tilled and prepared for forage/hay with an acre plot set aside for cole crop species to identify which crops will grow best in the existing soil conditions. As land is cleared, crop rotation and strategic planting will be scheduled to maximize soil retention and minimize loss through erosion. Site drainage will be managed according to topographical elevations and natural drainage features.

Existing natural features such as ponds, streams and wetlands will be respected as natural features supporting microenvironments for native flora and fauna. 50 m buffers will be established to protect these hydrological features. Licensed surveyors from local firms will be contracted to survey boundary lines, sensitive environmental features and cross section elevations to strategically plan drainage.

See Figures 1(1:16,000), 2(1:50,000), 3(1:100,000) for site layout drawings located in Appendix A

b.) Existing Biophysical Setting

Biophysical Setting:

The site is currently vegetated with boreal softwood and herbaceous meadow species. It is predominantly surrounded by existing farm land owners and Crown Land. Peter's Creek runs to the south of the plot and would require a minimum 50 m riparian buffer to protect the creek and the flora and fauna within the feature from disturbance.

Refer to Appendix B

a.) Site Development:

Phase 1 – In August or September 2020 following the bird nesting period up to 15% of the granted land area will be cleared on the western parcel of land. **Figure 4 and 5 in Appendix A** identify the proposed planting of forage/hay and cole crop. The first planting in spring 2021 will be 80% forage/hay and 20% cole crop. End of the growing season following the bird nesting period in 2021 will initiate phase 2.

Phase 2 – August and September 2021 following the bird nesting period the second clearing of the west parcel will be initiated. **Figure 6** in **Appendix A** identified the proposed clearance area for the 2022 growing season. The crop percentage in phase 2 would continue to be 80% forage/hay and 20% cole crop. Low tillage and soil retention methods are to be used along with proper crop rotation according to land conditions.

Phase 3 – August and September 2022 following the bird nesting period would initiate the clearing of usable land within the eastern parcel. **Figure 7** in **Appendix A** identified the area intended to be converted into agricultural use.

An apiary bee colony is to be established in phase 3. The hive is to be sourced locally from “Tulk’s Bee Better Farm” to be used for crop pollination and honey production. Initially, the objective would be to produce 20 to 40lbs of organic honey to be sold at local markets.

Key Stages of Site Development:

- Tree removal (Approximately 15 – 30 ha per season), stump removal where necessary and permitted. Planned natural hedge rows are to be left in place to mitigate wind erosion and soil loss.
- Prepping of site for planting in spring months (tilling, grading, drainage)
- Prepping of site for Bees (plant clover and wild flowers for pollination in strategic areas)

b.) Sources of Pollution/Resource Conflict

Fuel – Petroleum Hydro Carbons

Pesticide Application – Completed by qualified professionals and not stored on site.

Only approved crop will be planted on the permitted site, therefore no resource conflict is expected.

Sources of Pollution Table (Table 1 and 2) is located in Appendix C

Sources of Pollution (Operations Phase)

The controlled application of common pesticides/insecticides to the land and/or crops during operations may be deemed potential sources of pollution such as those included in Tables 1 and 2:

The application of non-organic chemical pesticides and herbicides will only occur if conventional and organic inhibitors are ineffective.

All pesticides on site will be handled and stored pursuant to the required regulations in a designated area of the facility. The proper handling requirements will be outlined in 83992 Newfoundland & Labrador Inc.'s Occupational Health & Safety Program and WHMIS training.

Bees

Organic apiary with no chemical fertilizer or pesticide/herbicide near to active hives.

Air Emissions/Odour:

None

All disposable materials from operations (recyclables, vegetative waste, etc.) will be disposed of as per Health Canada's guidelines.

Noise:

The operations will produce minimal noise daily. Noise will not negatively impact the surrounding areas.

Liquid Waste: <500L

Reliant upon rain water source for irrigation. If any oils or liquid waste such as petroleum products/pesticides are spilled or become freely available on the site, the liquid will be stored in a 500L drums and registered with the provinces waste disposal regulations.

Handling of Petroleum, Oils and Lubricants:

The potential risks of contaminating soil, surface water and groundwater with Petroleum, Oils and Lubricants (POL's) will be dependent solely on the vendor deliveries, which, as aforementioned, will be handled through the availability of spill kits, standard operating procedures and appropriate measures.

Table 3: Summary of Potential Resource Conflicts: Operations

| Table 3: Summary of Potential Resource Conflicts - Operations | | |
|--|---|--|
| Item | Potential Impacts | Mitigative Measure |
| Pesticides/Chemical Storage (Will NOT be using pesticides, if a situation arises for pesticide use, we will follow the appropriate guidelines to treat same) | Spills may occur while using Pesticides or storing chemicals causing potential impacts on the environmental & impacts to handlers health and safety | <ul style="list-style-type: none"> • Dedicated storage areas • Employee Training (WHMIS) • SOP's • Chemical storage and spill procedures |
| Air Emissions/Odour | NIL | |
| Solid Waste | Waste materials may come loose from compound and obstruct areas of land (drainage areas) | <ul style="list-style-type: none"> • Good housekeeping processes will be executed at all times |
| Noise | Noise may occur as a result of daily operations | <ul style="list-style-type: none"> • 83992's operational noise will abide by all bylaws in place for the Town Bishop Falls |
| Handling POLs | Accidental release of POLs from equipment | <ul style="list-style-type: none"> • A spill kit will be made clearly accessible |

c.) Waste Management Plan

Organic product therefore, any raw material left over will be composted or recycled. Any and all liquid waste produced will be contained and stored onsite within sealed 500L drums for removal to a designated facility.

d.) Fire Safety

This is an outdoor operation. The nearest Fire Station is located in Bishops Falls.

Bishop Falls Forest Management District Office

e.) Health, Safety & Environmental

83992 Newfoundland & Labrador Inc. is committed to workplace health and safety and will be working closely with the province's Workplace Health, Safety & Compensation Commission (WHSCC) to operate as a high standard safety facility as well as a PRIME compliant employer.

(v) Occupation

83992 Newfoundland & Labrador Inc. presents a unique opportunity to create a significant number of well-paying jobs within the community, employing local workers and revitalizing the stagnant area. It is expected that the operations employee headcount will be up to 10 personnel.

83992 Newfoundland & Labrador Inc. will employ an array of agricultural related positions throughout operations, some may include but are not limited to the following:

- Farm Supervisors - NOC #8252
- Harvesting Labourers - NOC #8611
- General Farm Workers - NOC #8431

83992 Newfoundland & Labrador Inc.

ORGANIZATIONAL CHART

Jeff Lingard

- ***Director***
- ***Co-CEO***
- ***Co-Founder***

Philip Lingard

- ***Director***
- ***Co-CEO***
- ***Co-Founder***

Taylor Giovannini

- ***Director***
- ***Co-Founder***

- **(vi) Project Related Documents:**

A farm plan is available upon request.

5.0 APPROVAL OF UNDERTAKING

- Crown Lands (Central Region) Application No. 154935.
- Forestry permit required prior to timber removal.

6.0 SCHEDULE

Phase 1 –

- **Clearing land August and September 2020 (following bird nesting period)**
- **Growth Season 2021**

Phase 2 –

- **Clearing August and September 2021 (following bird nesting period)**
- **Growth season 2022**
- **Clearing east parcel in August and September 2022 (following bird nesting period)**

Phase 3 –

- **Initiate bee hive production in 2023**
- **Growth season 2023 for eastern parcel.**

7.0 FUNDING

Funding to be provided by directors.

Date Signature of Chief Executive Officer

The completed Registration and the digital and paper copies should be sent, together with a covering letter, to:

Municipal Affairs and Environment
PO Box 8700
St. John's NL A1B 4J6
Attention: Director of Environmental Assessment

Enclosures:

Appendices A, B, C

APPENDIX A

APPENDIX B

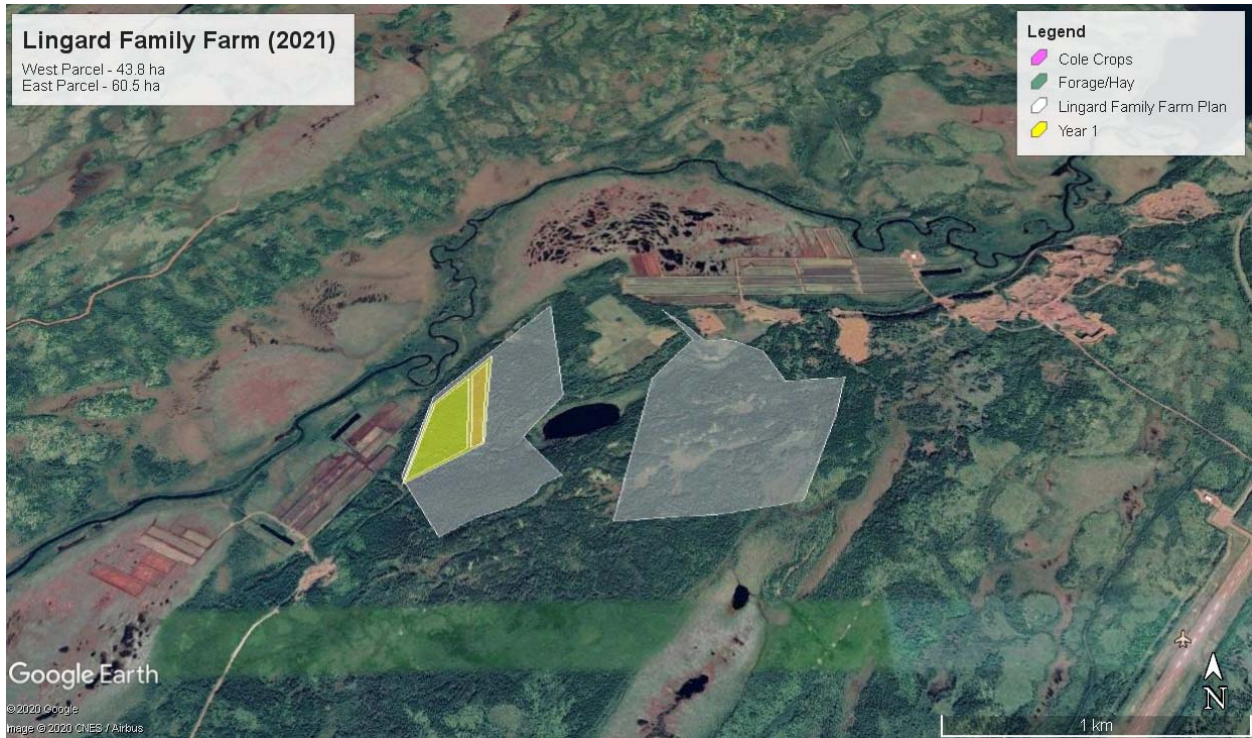


Figure 4: Lingard Family Farm – East and West parcels with first growing season plan.

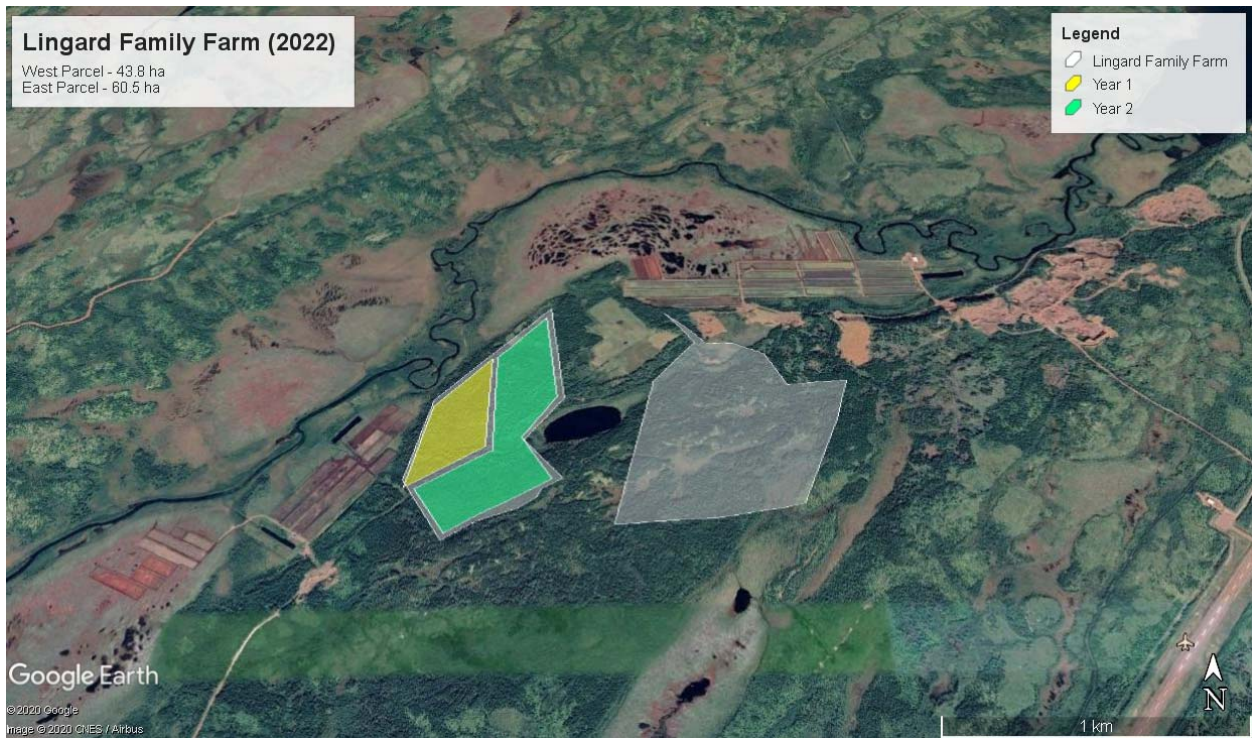


Figure 5: Lingard Family Farm – Year 2 expansion.

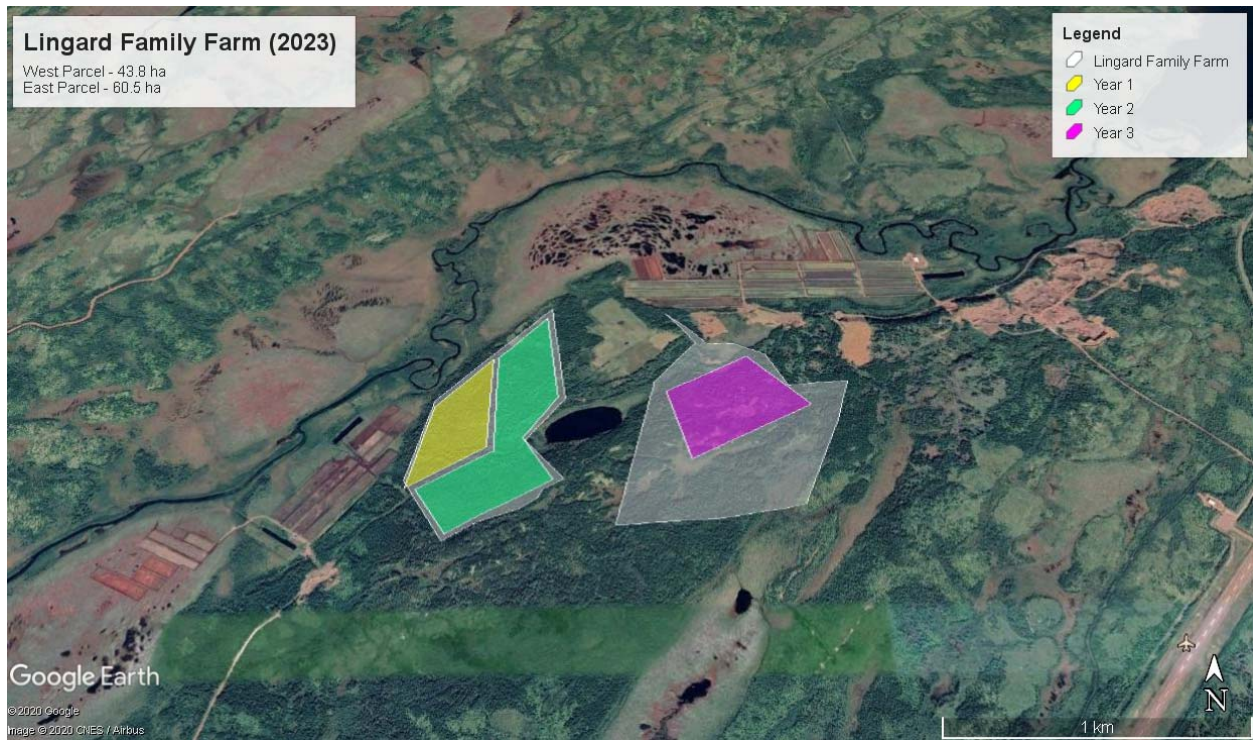


Figure 6: Lingard Family Farm - Year 3 expansion

APPENDIX C

Table 1. Insecticides for Control of Insect Pests of Cole Crops.

| Cabbage | Cauliflower | Broccoli | Brussels Sprouts |
|---|---|---|---|
| Aphids | | | |
| insecticidal soap neem oil extract pyrethrin neem oil extract permethrin bifenthrin cyhalothrin cypermethrin | insecticidal soap neem oil extract pyrethrin neem oil extract permethrin bifenthrin cyhalothrin cypermethrin | insecticidal soap neem oil extract pyrethrin neem oil extract permethrin bifenthrin cyhalothrin cypermethrin | insecticidal soap neem oil extract pyrethrin neem oil extract permethrin cyhalothrin cypermethrin |
| Caterpillars | | | |
| <i>Bacillus thuringiensis (B.t.)</i> spinosad pyrethrin permethrin bifenthrin cyfluthrin cypermethrin | <i>Bacillus thuringiensis (B.t.)</i> spinosad pyrethrin permethrin bifenthrin cyfluthrin cypermethrin | <i>Bacillus thuringiensis (B.t.)</i> spinosad pyrethrin permethrin bifenthrin cyfluthrin cypermethrin | <i>Bacillus thuringiensis (B.t.)</i> spinosad pyrethrin permethrin cyfluthrin cypermethrin |

| | | | |
|---|---|---|---|
| Harlequin Bugs & Stink Bugs | | | |
| permethrin bifenthrin cyfluthrin cypermethrin | permethrin bifenthrin cyfluthrin cypermethrin | permethrin bifenthrin cyfluthrin cypermethrin | permethrin cyfluthrin cypermethrin |
| Flea Beetles | | | |
| neem oil extract permethrin bifenthrin cyfluthrin cyhalothrin cypermethrin | neem oil extract permethrin bifenthrin cyfluthrin cyhalothrin cypermethrin | neem oil extract permethrin bifenthrin cyfluthrin cyhalothrin cypermethrin | neem oil extract permethrin cyfluthrin cyhalothrin cypermethrin |
| Whiteflies | | | |
| insecticidal soap neem oil extract pyrethrin cyfluthrin bifenthrin cyhalothrin cypermethrin | insecticidal soap neem oil extract pyrethrin cyfluthrin bifenthrin cyhalothrin cypermethrin | insecticidal soap neem oil extract pyrethrin cyfluthrin bifenthrin cyhalothrin cypermethrin | insecticidal soap neem oil extract pyrethrin cyfluthrin cyhalothrin cypermethrin |

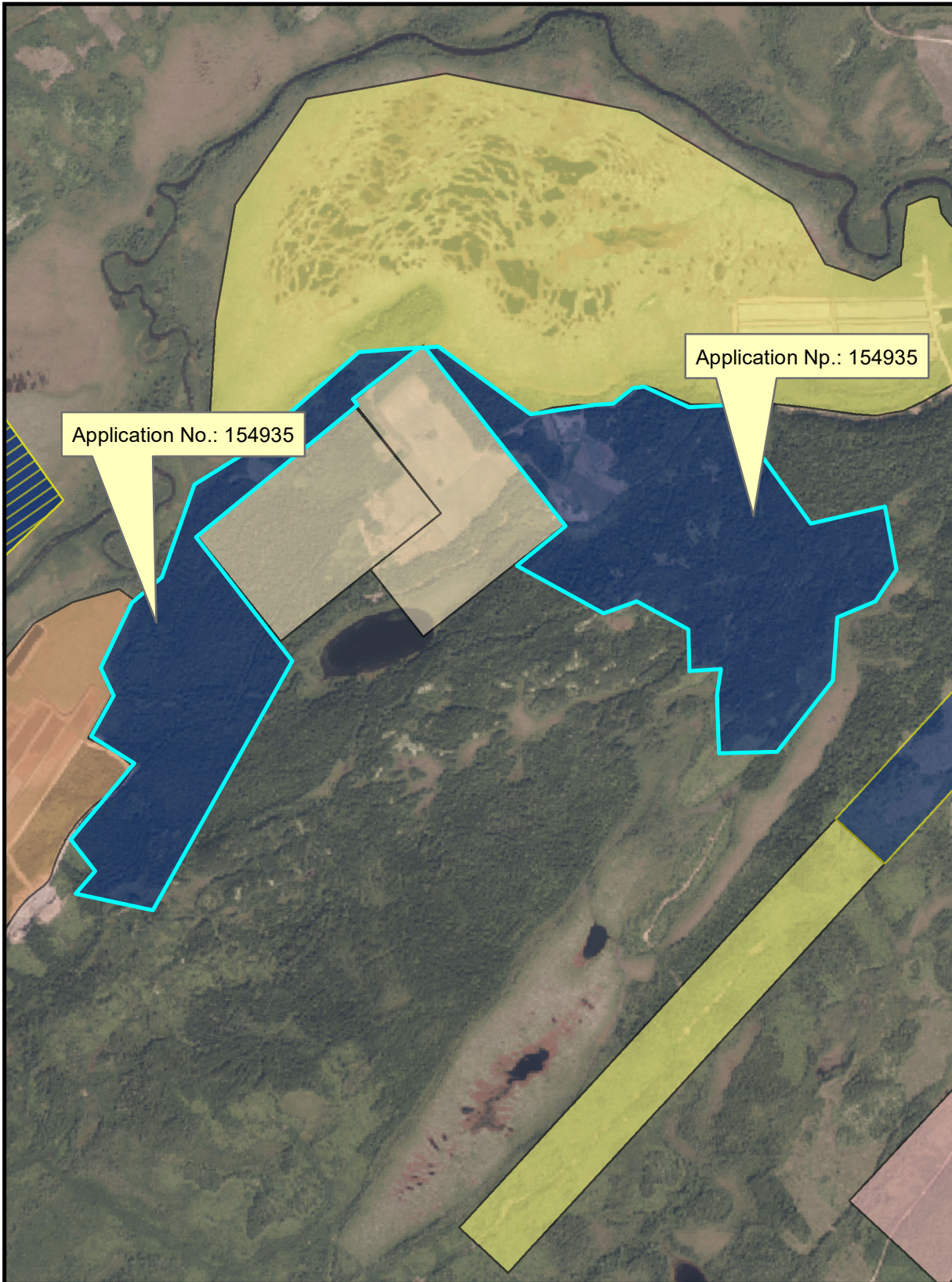
Table 2. Insecticide Products Labeled to Control Cole Crop Insect Pests.

| Insecticides & Fungicides | Examples of Brand Names & Products |
|--|---|
| <i>Bacillus thuringiensis (B.t.)</i> (0 days PHI) | Bonide Thuricide <i>B.t.</i> Concentrate Monterey <i>B.t.</i> Concentrate Natural Guard Caterpillar Killer Spray with Bt Concentrate Safer Caterpillar Killer with <i>B.t.</i> Concentrate Garden Safe <i>B.t.</i> Worm & Caterpillar Killer Concentrate Southern Ag Thuricide Spray Concentrate Tiger Brand Worm Killer Concentrate |
| Bifenthrin (7 days PHI) | Ferti-lome Broad Spectrum Insecticide Concentrate |
| Cyfluthrin (1 day PHI) | Bayer Bio Advanced Vegetable & Garden Insect Spray Conc.; & RTS; & RTU |
| Cyhalothrin (1 day PHI) | Martin's Cyonara Lawn & Garden Concentrate Spectracide Triazicide Insect Killer for Lawns & Landscapes Conc.; & RTS2 |
| Cypermethrin (1 day PHI) | GardenTech Sevin Insect Killer Concentrate; & RTS1 |
| Insecticidal Soap (0 day PHI) | Bonide Insecticidal Soap Multi-Purpose Insect Control Conc.; & RTU1 Espoma Earth-tone Insecticidal Soap Concentrate; & RTU1 Natural Guard Insecticidal Soap Concentrate; & RTU1 Safer Brand Insect Killing Soap Concentrate; & RTU1 Garden Safe Insecticidal Soap Insect Killer Concentrate; & RTU1 Whitney Farms Insecticidal Soap RTU1 |

| | |
|------------------------------|---|
| Neem Oil Extract (0 day PHI) | <p>Concern Garden Defense Multi-Purpose Spray Concentrate Ferti-lome Rose, Flower & Vegetable Spray Concentrate Garden Safe Fungicide 3 Concentrate; & RTU1 Monterey 70% Neem Oil Fungicide, Insecticide/Miticide Conc.; & RTS2 Natural Guard Neem Concentrate Southern Ag Triple Action Neem Oil Concentrate Safer BioNeem Insecticide & Repellent Concentrate</p> |
| Permethrin (1 day PHI) | <p>Bonide Eight Insect Control Vegetable Fruit & Flower Concentrate Bonide Eight Insect Control Yard & Garden RTS2</p> |
| Pyrethrin (0 day PHI) | <p>Bonide Pyrethrin Garden Insect Spray Concentrate Southern Ag Natural Pyrethrin Concentrate Spectracide Garden Insect Killer Concentrate (with Piperonyl Butoxide) Monterey Bug Buster-O Monterey Take Down Garden Spary Conc. (with canola oil)</p> |
| Spinosad (1 day PHI) | <p>Bonide Captain Jack's Dead Bug Brew Concentrate; & RTS2; & RTU1 Bonide Colorado Potato Beetle Beater Concentrate Ferti-lome Borer, Bagworm & Leafminer Spray Concentrate Monterey Garden Insect Spray Concentrate Natural Guard Spinosad Landscape & Garden Insecticide RTS2 Southern Ag Conserve Naturalyte Insect Control Concentrate</p> |

Source: <https://hgic.clemson.edu/factsheet/cabbage-broccoli-other-cole-crop-insect-pests/>

Government of Newfoundland & Labrador Department of Fisheries & Land Resources



NOTE TO USERS

The information on this map was compiled from land surveys registered in the Crown Lands Registry.

Since the Registry does not contain information on all land ownership within the Province, the information depicted cannot be considered complete.

The boundary lines shown are intended to be used as an index to land titles issued by the Crown. The accuracy of the plot is not sufficient for measurement purposes and does not guarantee title.

Users finding any errors or omissions on this map sheet are asked to contact the Crown Lands Inquiries Line by telephone at 1-833-891-3249 or by email at CrownLandsInfo@gov.nl.ca.

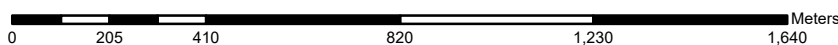
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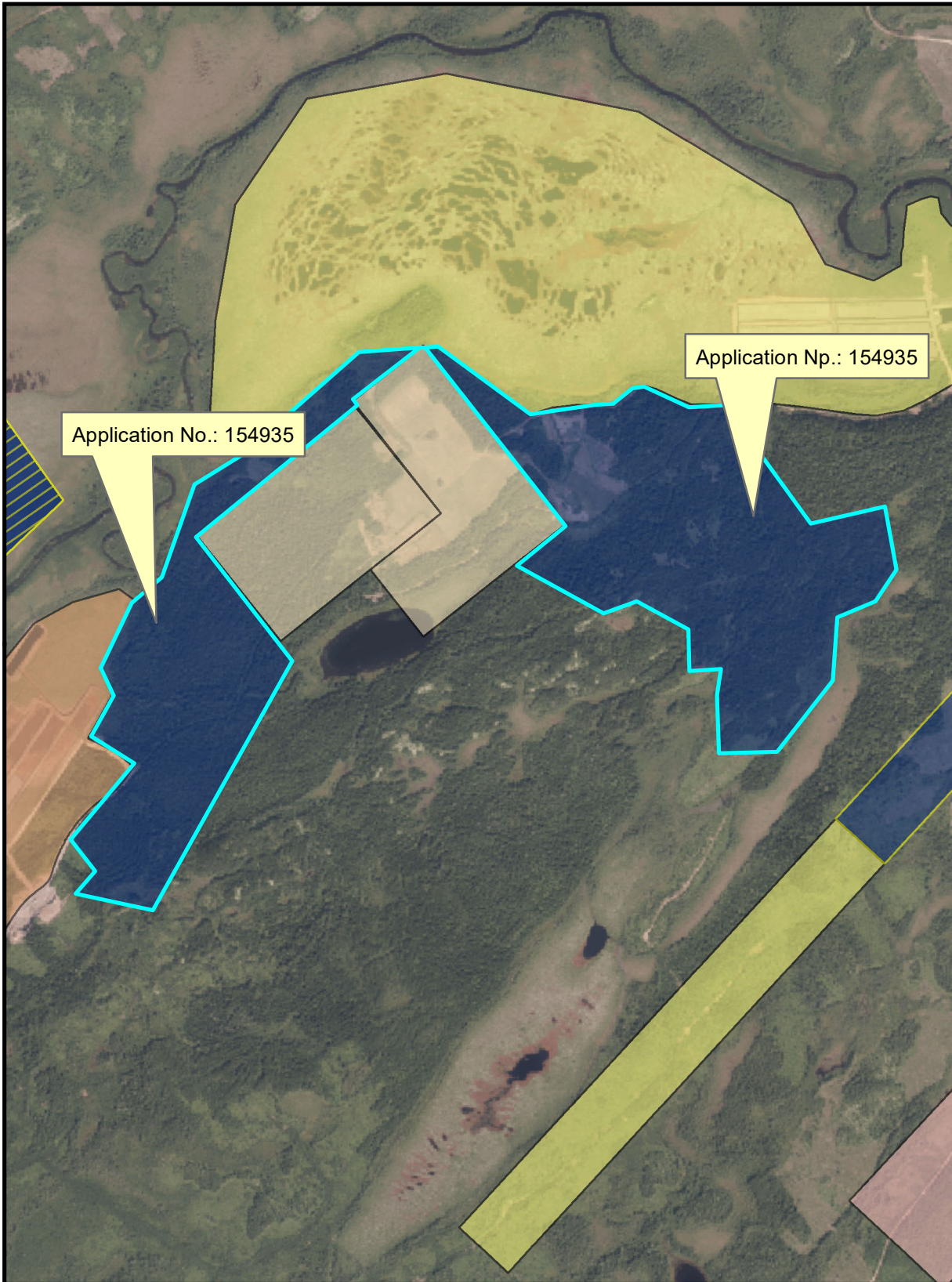


Crown Lands Administration Division



Scale 1:16,000
Compiled on May 21, 2019

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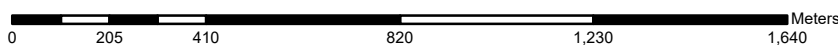
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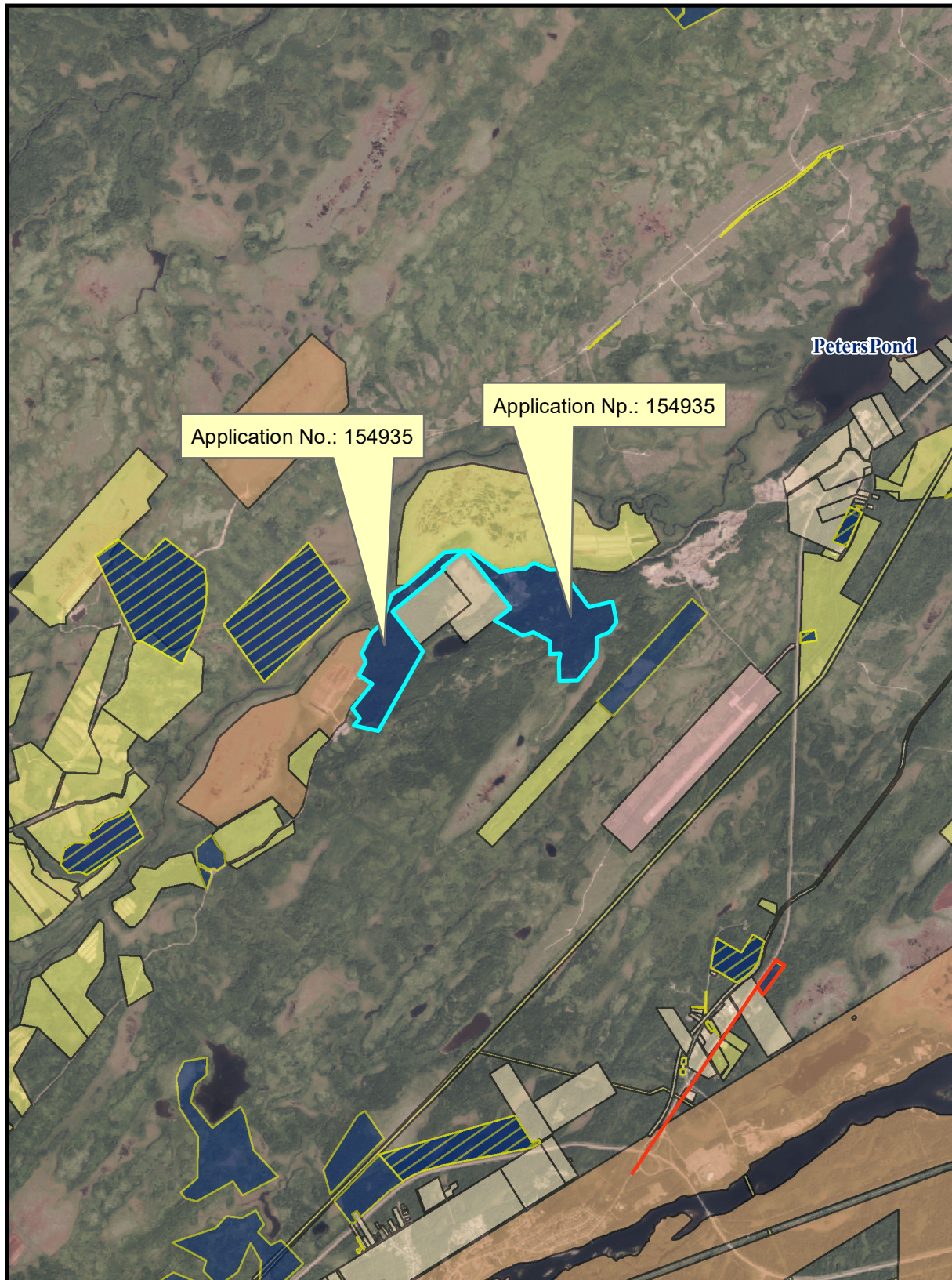


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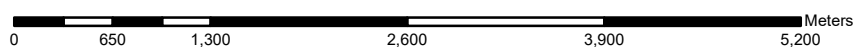
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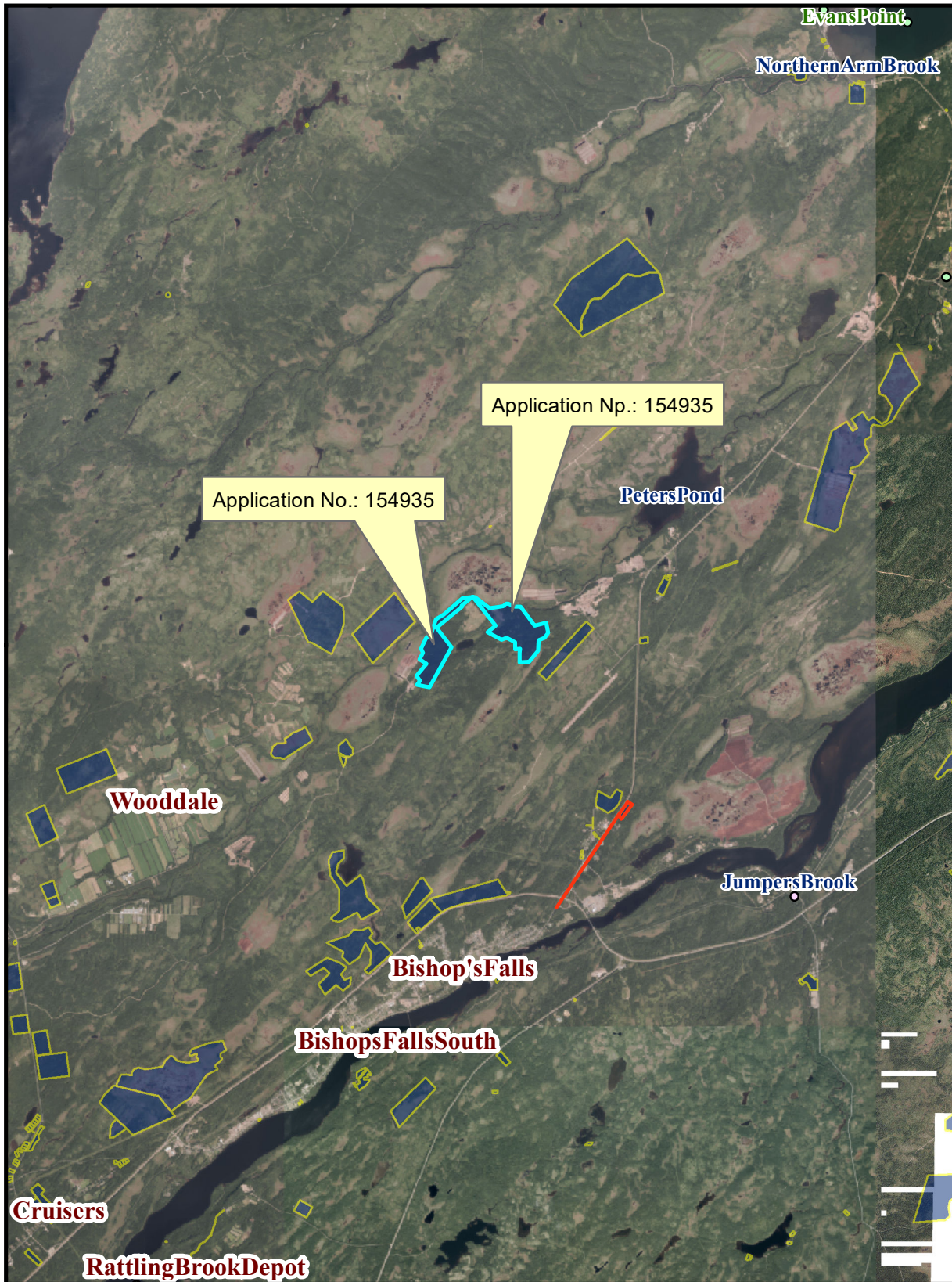


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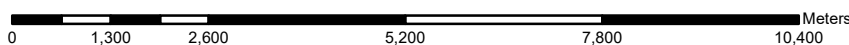
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Submitted By: Jeff Lingard

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a.) Proposed Undertaking:

Lot #20 is a 149 ha parcel of land located north of Peter's River in Wooddale East, Bishop Falls, NL. The plot is currently zoned for agricultural land use and would be surveyed for two separate parcels totalling 104.3 ha of useable agricultural land. Phase 1 of the west parcel is scheduled for development to begin in August or September 2020 following the bird nesting period and the required approval. See **Figure 4** in **Appendix A**.

The proposed development will not require the construction of permanent structures on the property. The entire converted land will be used for crop production and the growth of forage (hay). Cole crops are plants that belong to the mustard (Brassica) family and are all descendants of wild cabbage. As a group these plants grow better in cool weather. The following is a list of the most common of these plants: Brussel sprout, cabbage,

cauliflower, collards, kale, kohlrabi, mustard, broccoli, turnip, and watercress. The crop yield will be transported off site to be processed at the existing Lingard Farm also located in Wooddale.

Strategically harvested trees will be used to stock pile lumber that could be used for fire wood for personal use or for sale. Local contractors will be employed in the clearing stage. The remaining biomass will be chipped on site and used for mulch or compost.

In spring 2021, the cleared portion of land in the west parcel will be tilled and prepared for forage/hay with an acre plot set aside for cole crop species to identify which crops will grow best in the existing soil conditions. As land is cleared, crop rotation and strategic planting will be scheduled to maximize soil retention and minimize loss through erosion. Site drainage will be managed according to topographical elevations and natural drainage features.

Existing natural features such as ponds, streams and wetlands will be respected as natural features supporting microenvironments for native flora and fauna. 50 m buffers will be established to protect these hydrological features. Licensed surveyors from local firms will be contracted to survey boundary lines, sensitive environmental features and cross section elevations to strategically plan drainage.

See Figures 1(1:16,000), 2(1:50,000), 3(1:100,000) for site layout drawings located in Appendix A

b.) Existing Biophysical Setting

Biophysical Setting:

The site is currently vegetated with boreal softwood and herbaceous meadow species. It is predominantly surrounded by existing farm land owners and Crown Land. Peter's Creek runs to the south of the plot and would require a minimum 50 m riparian buffer to protect the creek and the flora and fauna within the feature from disturbance.

Refer to Appendix B

a.) Site Development:

Phase 1 – In August or September 2020 following the bird nesting period up to 15% of the granted land area will be cleared on the western parcel of land. **Figure 4 and 5 in Appendix A** identify the proposed planting of forage/hay and cole crop. The first planting in spring 2021 will be 80% forage/hay and 20% cole crop. End of the growing season following the bird nesting period in 2021 will initiate phase 2.

Phase 2 – August and September 2021 following the bird nesting period the second clearing of the west parcel will be initiated. **Figure 6** in **Appendix A** identified the proposed clearance area for the 2022 growing season. The crop percentage in phase 2 would continue to be 80% forage/hay and 20% cole crop. Low tillage and soil retention methods are to be used along with proper crop rotation according to land conditions.

Phase 3 – August and September 2022 following the bird nesting period would initiate the clearing of usable land within the eastern parcel. **Figure 7** in **Appendix A** identified the area intended to be converted into agricultural use.

An apiary bee colony is to be established in phase 3. The hive is to be sourced locally from “Tulk’s Bee Better Farm” to be used for crop pollination and honey production. Initially, the objective would be to produce 20 to 40lbs of organic honey to be sold at local markets.

Key Stages of Site Development:

- Tree removal (Approximately 15 – 30 ha per season), stump removal where necessary and permitted. Planned natural hedge rows are to be left in place to mitigate wind erosion and soil loss.
- Prepping of site for planting in spring months (tilling, grading, drainage)
- Prepping of site for Bees (plant clover and wild flowers for pollination in strategic areas)

b.) Sources of Pollution/Resource Conflict

Fuel – Petroleum Hydro Carbons

Pesticide Application – Completed by qualified professionals and not stored on site.

Only approved crop will be planted on the permitted site, therefore no resource conflict is expected.

Sources of Pollution Table (Table 1 and 2) is located in Appendix C

Sources of Pollution (Operations Phase)

The controlled application of common pesticides/insecticides to the land and/or crops during operations may be deemed potential sources of pollution such as those included in Tables 1 and 2:

The application of non-organic chemical pesticides and herbicides will only occur if conventional and organic inhibitors are ineffective.

All pesticides on site will be handled and stored pursuant to the required regulations in a designated area of the facility. The proper handling requirements will be outlined in 83992 Newfoundland & Labrador Inc.'s Occupational Health & Safety Program and WHMIS training.

Bees

Organic apiary with no chemical fertilizer or pesticide/herbicide near to active hives.

Air Emissions/Odour:

None

All disposable materials from operations (recyclables, vegetative waste, etc.) will be disposed of as per Health Canada's guidelines.

Noise:

The operations will produce minimal noise daily. Noise will not negatively impact the surrounding areas.

Liquid Waste: <500L

Reliant upon rain water source for irrigation. If any oils or liquid waste such as petroleum products/pesticides are spilled or become freely available on the site, the liquid will be stored in a 500L drums and registered with the provinces waste disposal regulations.

Handling of Petroleum, Oils and Lubricants:

The potential risks of contaminating soil, surface water and groundwater with Petroleum, Oils and Lubricants (POL's) will be dependent solely on the vendor deliveries, which, as aforementioned, will be handled through the availability of spill kits, standard operating procedures and appropriate measures.

Table 3: Summary of Potential Resource Conflicts: Operations

| Table 3: Summary of Potential Resource Conflicts - Operations | | |
|--|---|--|
| Item | Potential Impacts | Mitigative Measure |
| Pesticides/Chemical Storage (Will NOT be using pesticides, if a situation arises for pesticide use, we will follow the appropriate guidelines to treat same) | Spills may occur while using Pesticides or storing chemicals causing potential impacts on the environmental & impacts to handlers health and safety | <ul style="list-style-type: none"> • Dedicated storage areas • Employee Training (WHMIS) • SOP's • Chemical storage and spill procedures |
| Air Emissions/Odour | NIL | |
| Solid Waste | Waste materials may come loose from compound and obstruct areas of land (drainage areas) | <ul style="list-style-type: none"> • Good housekeeping processes will be executed at all times |
| Noise | Noise may occur as a result of daily operations | <ul style="list-style-type: none"> • 83992's operational noise will abide by all bylaws in place for the Town Bishop Falls |
| Handling POLs | Accidental release of POLs from equipment | <ul style="list-style-type: none"> • A spill kit will be made clearly accessible |

c.) Waste Management Plan

Organic product therefore, any raw material left over will be composted or recycled. Any and all liquid waste produced will be contained and stored onsite within sealed 500L drums for removal to a designated facility.

d.) Fire Safety

This is an outdoor operation. The nearest Fire Station is located in Bishops Falls.

Bishop Falls Forest Management District Office

e.) Health, Safety & Environmental

83992 Newfoundland & Labrador Inc. is committed to workplace health and safety and will be working closely with the province's Workplace Health, Safety & Compensation Commission (WHSCC) to operate as a high standard safety facility as well as a PRIME compliant employer.

(v) Occupation

83992 Newfoundland & Labrador Inc. presents a unique opportunity to create a significant number of well-paying jobs within the community, employing local workers and revitalizing the stagnant area. It is expected that the operations employee headcount will be up to 10 personnel.

83992 Newfoundland & Labrador Inc. will employ an array of agricultural related positions throughout operations, some may include but are not limited to the following:

- Farm Supervisors - NOC #8252
- Harvesting Labourers - NOC #8611
- General Farm Workers - NOC #8431

83992 Newfoundland & Labrador Inc.

ORGANIZATIONAL CHART

Jeff Lingard

- ***Director***
- ***Co-CEO***
- ***Co-Founder***

Philip Lingard

- ***Director***
- ***Co-CEO***
- ***Co-Founder***

Taylor Giovannini

- ***Director***
- ***Co-Founder***

- **(vi) Project Related Documents:**

A farm plan is available upon request.

5.0 APPROVAL OF UNDERTAKING

- Crown Lands (Central Region) Application No. 154935.
- Forestry permit required prior to timber removal.

6.0 SCHEDULE

Phase 1 –

- **Clearing land August and September 2020 (following bird nesting period)**
- **Growth Season 2021**

Phase 2 –

- **Clearing August and September 2021 (following bird nesting period)**
- **Growth season 2022**
- **Clearing east parcel in August and September 2022 (following bird nesting period)**

Phase 3 –

- **Initiate bee hive production in 2023**
- **Growth season 2023 for eastern parcel.**

7.0 FUNDING

Funding to be provided by directors.

Date Signature of Chief Executive Officer

The completed Registration and the digital and paper copies should be sent, together with a covering letter, to:

Municipal Affairs and Environment
PO Box 8700
St. John's NL A1B 4J6
Attention: Director of Environmental Assessment

Enclosures:

Appendices A, B, C

APPENDIX A

APPENDIX B

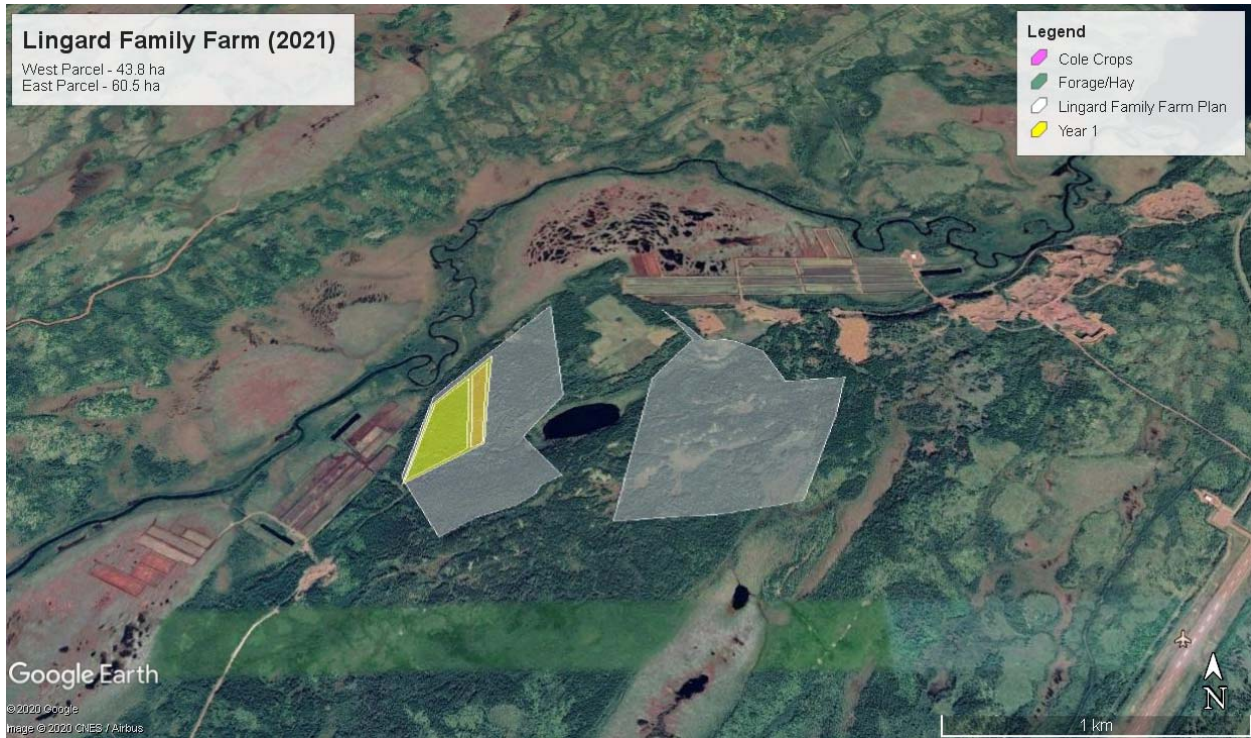


Figure 4: Lingard Family Farm – East and West parcels with first growing season plan.

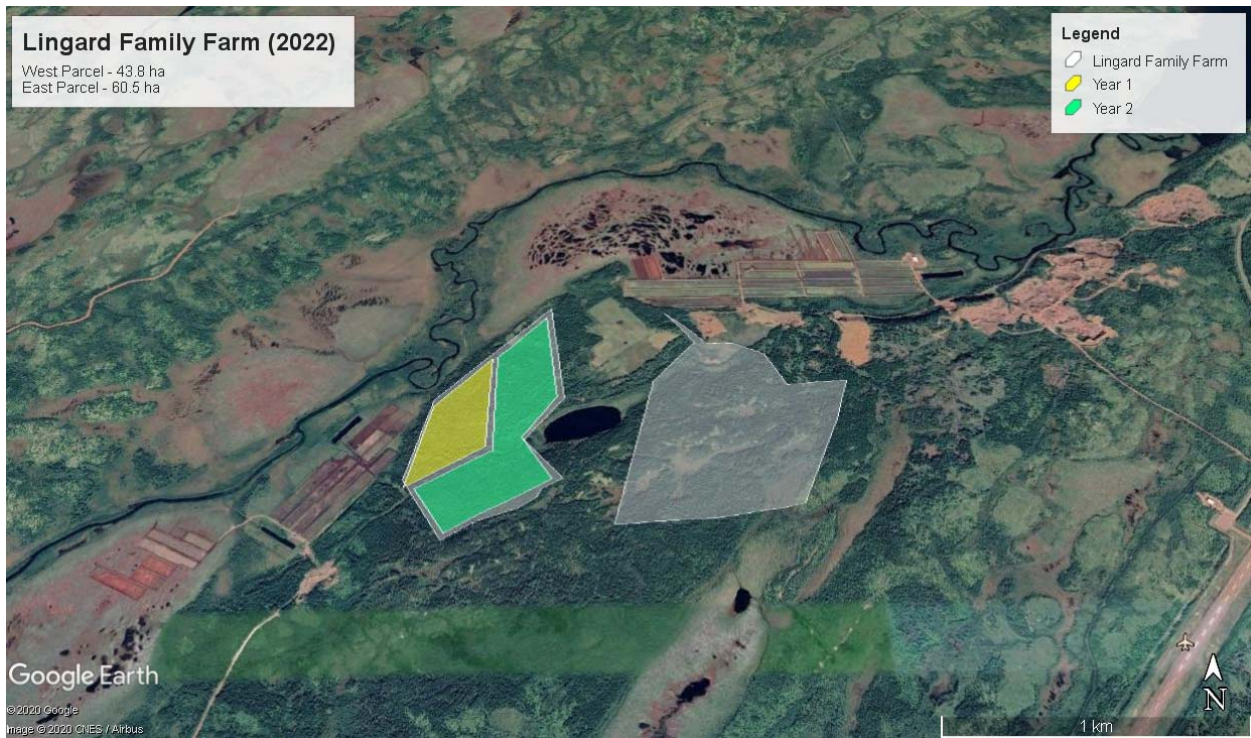


Figure 5: Lingard Family Farm – Year 2 expansion.

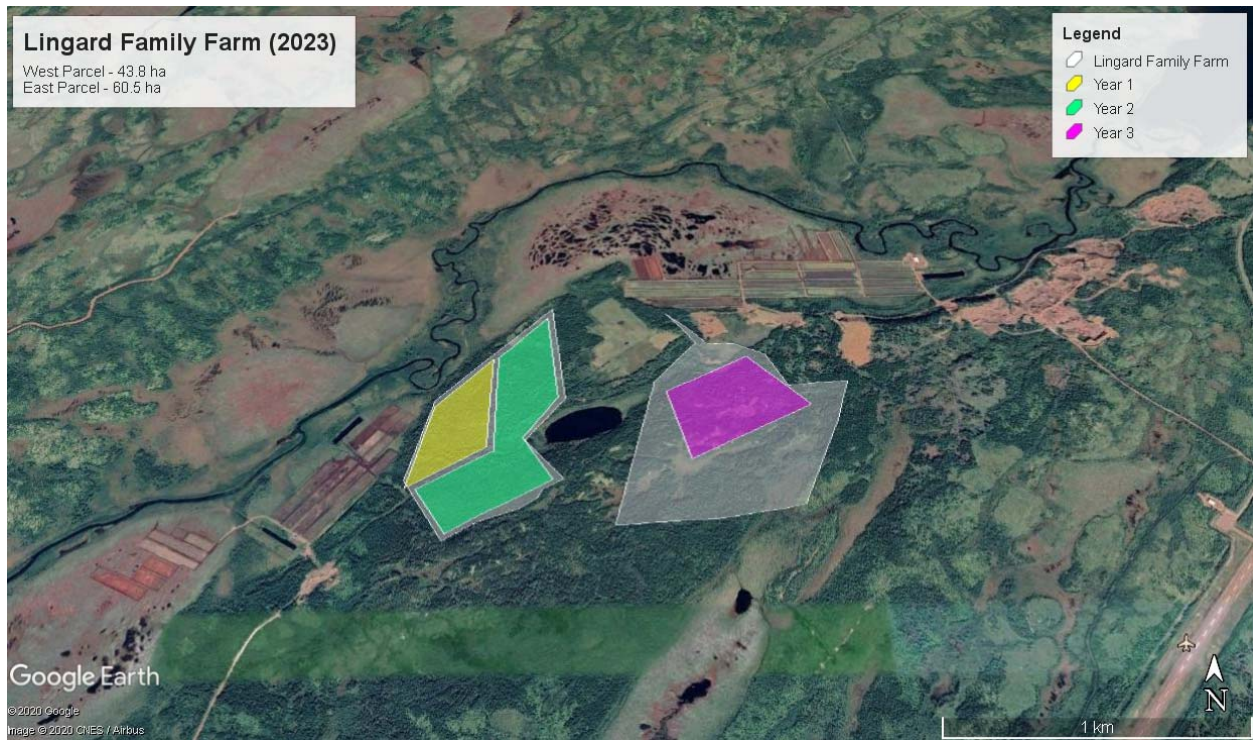


Figure 6: Lingard Family Farm - Year 3 expansion

APPENDIX C

Table 1. Insecticides for Control of Insect Pests of Cole Crops.

| Cabbage | Cauliflower | Broccoli | Brussels Sprouts |
|---|---|---|---|
| Aphids | | | |
| insecticidal soap neem oil extract pyrethrin neem oil extract permethrin bifenthrin cyhalothrin cypermethrin | insecticidal soap neem oil extract pyrethrin neem oil extract permethrin bifenthrin cyhalothrin cypermethrin | insecticidal soap neem oil extract pyrethrin neem oil extract permethrin bifenthrin cyhalothrin cypermethrin | insecticidal soap neem oil extract pyrethrin neem oil extract permethrin cyhalothrin cypermethrin |
| Caterpillars | | | |
| <i>Bacillus thuringiensis (B.t.)</i> spinosad pyrethrin permethrin bifenthrin cyfluthrin cypermethrin | <i>Bacillus thuringiensis (B.t.)</i> spinosad pyrethrin permethrin bifenthrin cyfluthrin cypermethrin | <i>Bacillus thuringiensis (B.t.)</i> spinosad pyrethrin permethrin bifenthrin cyfluthrin cypermethrin | <i>Bacillus thuringiensis (B.t.)</i> spinosad pyrethrin permethrin cyfluthrin cypermethrin |

| | | | |
|---|---|---|---|
| Harlequin Bugs & Stink Bugs | | | |
| permethrin bifenthrin cyfluthrin cypermethrin | permethrin bifenthrin cyfluthrin cypermethrin | permethrin bifenthrin cyfluthrin cypermethrin | permethrin cyfluthrin cypermethrin |
| Flea Beetles | | | |
| neem oil extract permethrin bifenthrin cyfluthrin cyhalothrin cypermethrin | neem oil extract permethrin bifenthrin cyfluthrin cyhalothrin cypermethrin | neem oil extract permethrin bifenthrin cyfluthrin cyhalothrin cypermethrin | neem oil extract permethrin cyfluthrin cyhalothrin cypermethrin |
| Whiteflies | | | |
| insecticidal soap neem oil extract pyrethrin cyfluthrin bifenthrin cyhalothrin cypermethrin | insecticidal soap neem oil extract pyrethrin cyfluthrin bifenthrin cyhalothrin cypermethrin | insecticidal soap neem oil extract pyrethrin cyfluthrin bifenthrin cyhalothrin cypermethrin | insecticidal soap neem oil extract pyrethrin cyfluthrin cyhalothrin cypermethrin |

Table 2. Insecticide Products Labeled to Control Cole Crop Insect Pests.

| Insecticides & Fungicides | Examples of Brand Names & Products |
|--|---|
| <i>Bacillus thuringiensis (B.t.)</i> (0 days PHI) | Bonide Thuricide <i>B.t.</i> Concentrate Monterey <i>B.t.</i> Concentrate Natural Guard Caterpillar Killer Spray with Bt Concentrate Safer Caterpillar Killer with <i>B.t.</i> Concentrate Garden Safe <i>B.t.</i> Worm & Caterpillar Killer Concentrate Southern Ag Thuricide Spray Concentrate Tiger Brand Worm Killer Concentrate |
| Bifenthrin (7 days PHI) | Ferti-lome Broad Spectrum Insecticide Concentrate |
| Cyfluthrin (1 day PHI) | Bayer Bio Advanced Vegetable & Garden Insect Spray Conc.; & RTS; & RTU |
| Cyhalothrin (1 day PHI) | Martin's Cyonara Lawn & Garden Concentrate Spectracide Triazicide Insect Killer for Lawns & Landscapes Conc.; & RTS2 |
| Cypermethrin (1 day PHI) | GardenTech Sevin Insect Killer Concentrate; & RTS1 |
| Insecticidal Soap (0 day PHI) | Bonide Insecticidal Soap Multi-Purpose Insect Control Conc.; & RTU1 Espoma Earth-tone Insecticidal Soap Concentrate; & RTU1 Natural Guard Insecticidal Soap Concentrate; & RTU1 Safer Brand Insect Killing Soap Concentrate; & RTU1 Garden Safe Insecticidal Soap Insect Killer Concentrate; & RTU1 Whitney Farms Insecticidal Soap RTU1 |

| | |
|------------------------------|---|
| Neem Oil Extract (0 day PHI) | <p>Concern Garden Defense Multi-Purpose Spray Concentrate Ferti-lome Rose, Flower & Vegetable Spray Concentrate Garden Safe Fungicide 3 Concentrate; & RTU1 Monterey 70% Neem Oil Fungicide, Insecticide/Miticide Conc.; & RTS2 Natural Guard Neem Concentrate Southern Ag Triple Action Neem Oil Concentrate Safer BioNeem Insecticide & Repellent Concentrate</p> |
| Permethrin (1 day PHI) | <p>Bonide Eight Insect Control Vegetable Fruit & Flower Concentrate Bonide Eight Insect Control Yard & Garden RTS2</p> |
| Pyrethrin (0 day PHI) | <p>Bonide Pyrethrin Garden Insect Spray Concentrate Southern Ag Natural Pyrethrin Concentrate Spectracide Garden Insect Killer Concentrate (with Piperonyl Butoxide) Monterey Bug Buster-O Monterey Take Down Garden Spary Conc. (with canola oil)</p> |
| Spinosad (1 day PHI) | <p>Bonide Captain Jack's Dead Bug Brew Concentrate; & RTS2; & RTU1 Bonide Colorado Potato Beetle Beater Concentrate Ferti-lome Borer, Bagworm & Leafminer Spray Concentrate Monterey Garden Insect Spray Concentrate Natural Guard Spinosad Landscape & Garden Insecticide RTS2 Southern Ag Conserve Naturalyte Insect Control Concentrate</p> |

Source: <https://hgic.clemson.edu/factsheet/cabbage-broccoli-other-cole-crop-insect-pests/>