



New England Brambles Pest Management Survey
Pest management Resources Online for New England
(PRONewEngland.org)



This survey should be completed by the person most responsible for crop management decisions on your farm. Please complete if you grow Brambles.

Do you grow Brambles for sale? (Please circle your answer)

Yes ----> continue below

No ----> if no, please answer the questions on **Page 18** and return questionnaire using the self-addressed stamped envelope – Thank you

Please fill in the blanks or circle your answers where indicated in the questions below for brambles.

**A1. How many acres of brambles did you manage in 2006?
(Please fill in your answer)**

_____ Acres

**A2. Over the past five years, what is your average annual yield of harvested brambles per acre?
(Please fill in your answer)**

_____ 1/2 Pints/Acre or _____ Pounds/Acre

A3. What percentages of your brambles are:

Summer red raspberries	_____	%
Summer black raspberries	_____	%
Summer purple raspberries	_____	%
Fall red raspberries	_____	%
Fall yellow raspberries	_____	%
Blackberries	_____	%
Other (specify _____)	_____	%
Total	100	%

A4. What percentage of your bramble crop is sold through each of these markets?

Pick-your-own	_____	%
Fresh market, wholesale	_____	%
Fresh market, retail farm stand	_____	%
Processing	_____	%
Other (specify _____)	_____	%
Total	100	%

If you have any questions about this survey please contact Natalia P. Clifton at (413) 545-1044 or email at nclifton @psis.umass.edu

Horticultural Management for Brambles

B1. Which of the following pruning practices do you use? (Circle all that apply.)

Dormant season removal of old canes

Dormant season thinning of primocanes

Other (please specify) _____

B2. Do you use leaf tissue analysis to determine fertilizer needs? (Circle answer)

Yes or No

If yes, how frequently is it performed?

1 time each year

Every other year

Every third year

Other (please specify) _____

B3. Do you use a soil sample to determine fertilizer needs in most years? (Circle answer)

Yes or No

If yes, how frequently is it performed?

1 time each year

Every other year

Every third year

Other (please specify) _____

B4. Which soil and/or nutrient management practices do you use? (Circle all that apply.)

Single Spring fertilizer application

Split fertilizer application (May/June)

Compost application

Other (please specify) _____

General Pest Management Information for Brambles

C1. Which of these insects/mites require routine annual management, require occasional management, or are never a problem in your brambles? (Please circle your answers)

Insects & Mites

Raspberry Crown Borer	Routine, annual management	Occasional pest	Never a problem
Raspberry Fruitworm	Routine, annual management	Occasional pest	Never a problem
Tarnished Plant Bug	Routine, annual management	Occasional pest	Never a problem
Strawberry Bud Weevil	Routine, annual management	Occasional pest	Never a problem
Raspberry Cane Borer	Routine, annual management	Occasional pest	Never a problem
Japanese beetles	Routine, annual management	Occasional pest	Never a problem
Aphids	Routine, annual management	Occasional pest	Never a problem
Sap beetles	Routine, annual management	Occasional pest	Never a problem
Twospotted Spider Mite	Routine, annual management	Occasional pest	Never a problem
Yellowjackets	Routine, annual management	Occasional pest	Never a problem
Other insects/mites (Specify: _____)	Routine, annual management	Occasional pest	Occasional pest
Other insects/mites (Specify: _____)	Routine, annual management	Occasional pest	Occasional pest

C2. Which of these diseases require routine annual management, require occasional management, or are never a problem on your brambles? (Please circle your answers)

Diseases

Phytophthora Root Rot	Routine, annual management	Occasional disease	Never a problem
Anthraxnose	Routine, annual management	Occasional disease	Never a problem
Orange Rust	Routine, annual management	Occasional disease	Never a problem
Botrytis fruit rot (gray mold)	Routine, annual management	Occasional disease	Never a problem
Powdery Mildew	Routine, annual management	Occasional disease	Never a problem
Spur Blight	Routine, annual management	Occasional disease	Never a problem
Cane Blight	Routine, annual management	Occasional disease	Never a problem
Verticillium Wilt	Routine, annual management	Occasional disease	Never a problem
Crown Gall	Routine, annual management	Occasional disease	Never a problem
Viruses	Routine, annual management	Occasional disease	Never a problem
Late Leaf Rust	Routine, annual management	Occasional disease	Never a problem
Other diseases:(Specify: _____)	Routine, annual management	Occasional disease	Occasional disease
Other diseases:(Specify: _____)	Routine, annual management	Occasional disease	Occasional disease

C4. Which of these weed types require routine annual management, require occasional management, or are never a problem on your brambles? (Please circle your answers)

Annual Broadleaf Weeds	Routine, annual management	Occasional	Never a problem
Perennial Broadleaf Weeds	Routine, annual management	Occasional	Never a problem
Annual Grasses	Routine, annual management	Occasional	Never a problem
Perennial Grasses	Routine, annual management	Occasional	Never a problem

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C5. Which of these vertebrate pests require routine annual management, require occasional management, or are never a problem on your brambles? (Please circle your answers)

Bear	Routine, annual management	Occasional	Never a problem
Birds	Routine, annual management	Occasional	Never a problem
Deer	Routine, annual management	Occasional	Never a problem
Pine Voles	Routine, annual management	Occasional	Never a problem
Porcupines	Routine, annual management	Occasional	Never a problem
Raccoons	Routine, annual management	Occasional	Never a problem
Skunks	Routine, annual management	Occasional	Never a problem
Turkey	Routine, annual management	Occasional	Never a problem
Other Vertebrate pests (Specify: _____)	Routine, annual management	Occasional management	
Other Vertebrate pests (Specify: _____)	Routine, annual management	Occasional management	

In order to understand the importance of various pesticides and alternative strategies to bramble pest management, the following sections D-F ask for specific information about your pest management strategies and actual pesticide use.

General Insect Pest Management Information for Brambles

D1. Which of the following practices do you use to manage insects and/or mite pests? (Circle all that apply.)

- (a) Field scouting for Tarnished plant bug nymphs
- (b) Field scouting for mites
- (c) Field scouting for other pests (Please specify _____)
- (d) Release predatory mites to control twospotted mites
- (e) Using traps for Japanese beetles
- (f) Using traps for yellowjackets
- (g) Handpicking of insect pests
- (h) Pick all berries even overripe
- (i) Eliminate wild brambles
- (j) Remove weeds that may harbor insect pests
- (k) Avoid excess N fertilizer application
- (l) Read state or regional pest alerts/newsletter
- (m) None
- (n) Other (please explain) _____

D2. Please indicate the number of applications that you made in 2006 for the following pesticides for managing insects/mites. (Please fill in an answer for each pesticide)

Pesticide(s) used	Number of Applications					
Asana XL (esfenvalerate)	1	2	3	4	none	other _____
Aza-Direct (azadirachtin)	1	2	3	4	none	other _____
Capture 2EC (bifenthrin)	1	2	3	4	none	other _____
Fanfare 2EC (bifenthrin)	1	2	3	4	none	other _____
JMS Stylet Oil	1	2	3	4	none	other _____
Malathion 8E (malathion)	1	2	3	4	none	other _____
Malathion 57EC (malathion)	1	2	3	4	none	other _____
M-Pede (potassium salts of fatty acids)	1	2	3	4	none	other _____
PyGanic EC (pyrethrins)	1	2	3	4	none	other _____
Pyrellin EC (pyrethrins/rotenone)	1	2	3	4	none	other _____
Pyrenone Crop Spray (pyrethrins)	1	2	3	4	none	other _____
Savey 50WP (hexythiazox)	1	2	3	4	none	other _____
Sevin XLR Plus (carbaryl)	1	2	3	4	none	other _____
Surround WP (kaolin)	1	2	3	4	none	other _____
Other Pesticide(s) used:						
Please specify: _____	1	2	3	4	none	other _____
Please specify: _____	1	2	3	4	none	other _____
Please specify: _____	1	2	3	4	none	other _____
Please specify: _____	1	2	3	4	none	other _____
Please specify: _____	1	2	3	4	none	other _____

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For each of the following insects and mites, indicate the **percentage of your total bramble crop treated in 2006**. If you **did not treat for the pest**, put “0” in the “percent treated” slot. If question is left blank, we won’t know if you meant zero percent treated or if you skipped the question. Please circle the pesticides that you used and the effectiveness of the management strategy (**excellent, good, poor**). If you used non-pesticide strategies to manage a pest please specify them in the “**Other Strategies Employed**” area.

D3. Raspberry Fruitworm

a) **Percent of brambles treated for raspberry fruitworm in 2006** _____ %

b) Pesticide(s) used (circle all that apply)	Effectiveness		
	<u>Excellent</u>	<u>Good</u>	<u>Poor</u>
Aza-Direct (azadirachtin)	Excellent	Good	Poor
Pyrellin EC (pyrethrins/rotenone)	Excellent	Good	Poor
Pyrenone Crop Spray (pyrethrins)	Excellent	Good	Poor
Sevin XLR Plus (carbaryl)	Excellent	Good	Poor
Other Pesticide(s) used: Please specify: _____	Excellent	Good	Poor
Biological Strategies Employed: Release Trichogramma wasps	Excellent	Good	Poor
Other Strategies Employed: (Please Specify) _____	Excellent	Good	Poor
(Please Specify) _____	Excellent	Good	Poor

D4. Tarnished Plant Bug

a) **Percent of brambles treated for tarnished plant bug in 2006** _____ %

b) Pesticide(s) used (circle all that apply)	Effectiveness		
	<u>Excellent</u>	<u>Good</u>	<u>Poor</u>
Aza-Direct (azadirachtin)	Excellent	Good	Poor
PyGanic EC (pyrethrins)	Excellent	Good	Poor
Pyrenone Crop Spray (pyrethrins)	Excellent	Good	Poor
Sevin XLR Plus (carbaryl)	Excellent	Good	Poor
Other Pesticide(s) used: Please specify: _____	Excellent	Good	Poor
Other Strategies Employed: (Please Specify) _____	Excellent	Good	Poor
(Please Specify) _____	Excellent	Good	Poor

D5. Strawberry Bud Weevil

a) Percent of brambles treated for strawberry bud weevil in 2006 _____%

b) Pesticide(s) used (circle all that apply)	Effectiveness		
	Excellent	Good	Poor
Aza-Direct (azadirachtin)	Excellent	Good	Poor
Sevin XLR Plus (carbaryl)	Excellent	Good	Poor
Other Pesticide(s) used: Please specify: _____	Excellent	Good	Poor
Other Strategies Employed: (Please Specify) _____	Excellent	Good	Poor
(Please Specify) _____	Excellent	Good	Poor

D6. Cane borer

a) Percent of brambles treated for cane borers in 2006 _____%

b) Pesticide(s) used (circle all that apply)	Effectiveness		
	Excellent	Good	Poor
Pyrellin EC (pyrethrins/rotenone)	Excellent	Good	Poor
Other Pesticide(s) used: Please specify: _____	Excellent	Good	Poor
Other Strategies Employed: Removal of flagged tips or galls	Excellent	Good	Poor
(Please Specify) _____	Excellent	Good	Poor
(Please Specify) _____	Excellent	Good	Poor

D7. Japanese beetles

a) Percent of brambles treated for Japanese beetles in 2006 _____%

b) Pesticide(s) used (circle all that apply)	Effectiveness		
	Excellent	Good	Poor
Aza-Direct (azadirachtin)	Excellent	Good	Poor
Malathion 8E (malathion)	Excellent	Good	Poor
PyGanic EC (pyrethrins)	Excellent	Good	Poor
Pyrellin EC (pyrethrins/rotenone)	Excellent	Good	Poor
Pyrenone Crop Spray (pyrethrins)	Excellent	Good	Poor
Sevin XLR Plus (carbaryl)	Excellent	Good	Poor
Surround WP (kaolin)	Excellent	Good	Poor
Other Pesticide(s) used: Please specify: _____	Excellent	Good	Poor
Other Strategies Employed: Traps	Excellent	Good	Poor
(Please Specify) _____	Excellent	Good	Poor
(Please Specify) _____	Excellent	Good	Poor

D8. Aphids

a) Percent of brambles treated for aphids in 2006 _____ %

b) Pesticide(s) used (circle all that apply)	Effectiveness		
	Excellent	Good	Poor
Asana XL (esfenvalerate)	Excellent	Good	Poor
Aza-Direct (azadirachtin)	Excellent	Good	Poor
Malathion 57EC (malathion)	Excellent	Good	Poor
PyGanic EC (pyrethrins)	Excellent	Good	Poor
Other Pesticide(s) used: Please specify: _____	Excellent	Good	Poor
Other Strategies Employed: (Please Specify) _____	Excellent	Good	Poor
(Please Specify) _____	Excellent	Good	Poor

D9. Sap Beetles

a) Percent of brambles treated for sap beetle in 2006 _____ %

b) Pesticide(s) used (circle all that apply)	Effectiveness		
	Excellent	Good	Poor
Aza-Direct (azadirachtin)	Excellent	Good	Poor
Malathion 57EC (malathion)	Excellent	Good	Poor
PyGanic EC (pyrethrins)	Excellent	Good	Poor
Pyrenone Crop Spray (pyrethrins)	Excellent	Good	Poor
Other Pesticide(s) used: Please specify: _____	Excellent	Good	Poor
Other Strategies Employed: (Please Specify) _____	Excellent	Good	Poor
(Please Specify) _____	Excellent	Good	Poor

D10. Twospotted Spider Mite

a) Percent of brambles treated for twospotted spider mite in 2006 _____%

b) Pesticide(s) used (circle all that apply)	Effectiveness		
	Excellent	Good	Poor
Aza-Direct (azadirachtin)	Excellent	Good	Poor
Capture 2EC (bifenthrin)	Excellent	Good	Poor
Fanfare 2EC (bifenthrin)	Excellent	Good	Poor
JMS Stylet Oil	Excellent	Good	Poor
M-Pede (potassium salts of fatty acids)	Excellent	Good	Poor
Savey 50WP (hexythiazox)	Excellent	Good	Poor
Other Pesticide(s) used: Please specify: _____	Excellent	Good	Poor
Biological Strategies Employed: Release predatory mites	Excellent	Good	Poor
Other Strategies Employed: (Please Specify) _____	Excellent	Good	Poor
(Please Specify) _____	Excellent	Good	Poor

D11. Other Insect/Mite Pest(s) Please Specify _____

a) Percent of brambles crop treated for Other Insect/Mite(s) in 2006 _____%

b) Pesticide/Strategy(ies) used (please list)	Effectiveness		
	Excellent	Good	Poor
_____	Excellent	Good	Poor
_____	Excellent	Good	Poor

D12. Other Insect/Mite Pest(s) Please Specify _____

a) Percent of brambles crop treated for Other Insect/Mite(s) in 2006 _____%

b) Pesticide/Strategy(ies) used (please list)	Effectiveness		
	Excellent	Good	Poor
_____	Excellent	Good	Poor
_____	Excellent	Good	Poor

Disease Management for Brambles

E1. Which of the following practices do you use to manage diseases in brambles? (Circle all that apply.)

- (a) Remove all wild brambles within 600 feet of planting
- (b) Use certified virus-free plants
- (c) Disease tolerant varieties
- (d) Crop rotation
- (e) Application of fungicides
- (f) Prune out diseased plants
- (g) Thin to 4 to 5 canes per foot of row
- (h) Raised beds
- (i) Narrow fruit rows about 2 feet wide
- (j) Plant rows in direction of prevailing winds
- (k) Other (Please specify) _____

E2. Please indicate the number of applications that you made in 2006 for the following pesticides for managing diseases. (Please fill in an answer for each pesticide)

Pesticide(s) used	Number of Applications					
	1	2	3	4	none	other _____
Abound (azoxystrobin)	1	2	3	4	none	other _____
Aliette WDG (fosetyl Al)	1	2	3	4	none	other _____
Cabrio (pyraclostrobin)	1	2	3	4	none	other _____
Captan 80WDG (captan)	1	2	3	4	none	other _____
Cuprofix (copper sulfate)	1	2	3	4	none	other _____
Elevate 50WDG (fenhexamid)	1	2	3	4	none	other _____
JMS Stylet Oil	1	2	3	4	none	other _____
Kocide (copper hydroxide)	1	2	3	4	none	other _____
Kumulus (sulfur)	1	2	3	4	none	other _____
Lime Sulfur	1	2	3	4	none	other _____
Microthiol Disperss (sulfur)	1	2	3	4	none	other _____
Nova 40 W (myclobutanil)	1	2	3	4	none	other _____
Phostrol (phosphorus acid)	1	2	3	4	none	other _____
Pristine (pyraclostrobin/boscalid)	1	2	3	4	none	other _____
Ridomil (mefenoxam)	1	2	3	4	none	other _____
Rovral 50 WP (iprodione)	1	2	3	4	none	other _____
Switch WG (cypronil/fludioxonil)	1	2	3	4	none	other _____
Other Pesticide(s) used:						
Please specify: _____	1	2	3	4	none	other _____
Please specify: _____	1	2	3	4	none	other _____
Please specify: _____	1	2	3	4	none	other _____
Please specify: _____	1	2	3	4	none	other _____
Please specify: _____	1	2	3	4	none	other _____
Please specify: _____	1	2	3	4	none	other _____

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For each of the following diseases, indicate the **percentage of your total brambles crop treated in 2006**. If you **did not treat for the disease**, put “0” in the “percent treated” slot. If question is left blank, we won’t know if you meant zero percent treated or if you skipped the question. Please circle the pesticides that you used and the effectiveness of the management strategy (**excellent, good, poor**). If you used non-pesticide strategies to manage a disease please specify them in the “**Other Strategies Employed**” area.

E3. Phytophthora Root Rot

a) **Percent of brambles treated for Phytophthora root rot in 2006** _____ %

b) Pesticide(s) used (circle all that apply)	Effectiveness		
	Excellent	Good	Poor
Aliette WDG (fosetyl AI)	Excellent	Good	Poor
Phostrol (phosphorus acid)	Excellent	Good	Poor
Ridomil (mefenoxam)	Excellent	Good	Poor
Other Pesticide(s) used: Please specify: _____	Excellent	Good	Poor
Other Strategies Employed: Raised beds	Excellent	Good	Poor
Resistant cultivars	Excellent	Good	Poor
(Please Specify) _____	Excellent	Good	Poor

E4. Anthracnose

a) **Percent of brambles treated for anthracnose in 2006** _____ %

b) Pesticide(s) used (circle all that apply)	Effectiveness		
	Excellent	Good	Poor
Abound (azoxystrobin)	Excellent	Good	Poor
Cabrio (pyraclostrobin)	Excellent	Good	Poor
Cuprofix (copper sulfate)	Excellent	Good	Poor
Kocide (copper hydroxide)	Excellent	Good	Poor
Lime sulfur	Excellent	Good	Poor
Pristine WG (pyraclostrobin/boscalid)	Excellent	Good	Poor
Other Pesticide(s) used: Please specify: _____	Excellent	Good	Poor
Other Strategies Employed: (Please Specify) _____	Excellent	Good	Poor
(Please Specify) _____	Excellent	Good	Poor

E5. Orange Rust

a) Percent of brambles treated for orange rust in 2006 _____ %

b) Pesticide(s) used (circle all that apply)	Effectiveness		
	Excellent	Good	Poor
Cabrio (pyraclostrobin)	Excellent	Good	Poor
Nova 40 W (myclobutanil)	Excellent	Good	Poor
Pristine (pyraclostrobin/boscalid)	Excellent	Good	Poor
Other Pesticide(s) used:			
Please specify: _____	Excellent	Good	Poor
Other Strategies Employed:			
(Please Specify) _____	Excellent	Good	Poor
(Please Specify) _____	Excellent	Good	Poor

E6. Botrytis Fruit Rot (Gray mold)

a) Percent of brambles treated for Botrytis fruit rot in 2006 _____ %

b) Pesticide(s) used (circle all that apply)	Effectiveness		
	Excellent	Good	Poor
Cabrio (pyraclostrobin)	Excellent	Good	Poor
Captan 80WDG (captan)	Excellent	Good	Poor
Elevate 50WDG (fenhexamid)	Excellent	Good	Poor
Pristine (pyraclostrobin/boscalid)	Excellent	Good	Poor
Rovral 50 WP (iprodione)	Excellent	Good	Poor
Switch WG (cypronil/fludioxonil)	Excellent	Good	Poor
Other Pesticide(s) used:			
Please specify: _____	Excellent	Good	Poor
Other Strategies Employed:			
(Please Specify) _____	Excellent	Good	Poor
(Please Specify) _____	Excellent	Good	Poor

E7. Powdery Mildew

a) Percent of brambles treated for powdery mildew in 2006 _____%

b) Pesticide(s) used (circle all that apply)	Effectiveness		
	Excellent	Good	Poor
Abound (azoxystrobin)	Excellent	Good	Poor
Cabrio (pyraclostrobin)	Excellent	Good	Poor
JMS Stylet Oil	Excellent	Good	Poor
Kumulus (sulfur)	Excellent	Good	Poor
Microthiol Disperss (sulfur)	Excellent	Good	Poor
Nova 40 W (myclobutanil)	Excellent	Good	Poor
Pristine (pyraclostrobin/boscalid)	Excellent	Good	Poor
Other Pesticide(s) used:			
Please specify: _____	Excellent	Good	Poor
Other Strategies Employed:			
(Please Specify) _____	Excellent	Good	Poor
(Please Specify) _____	Excellent	Good	Poor

E8. Cane Blight

a) Percent of brambles treated for cane blight in 2006 _____%

b) Pesticide(s) used (circle all that apply)	Effectiveness		
	Excellent	Good	Poor
Lime Sulfur	Excellent	Good	Poor
Other Pesticide(s) used:			
Please specify: _____	Excellent	Good	Poor
Other Strategies Employed:			
Pruning for good air circulation	Excellent	Good	Poor
(Please Specify) _____	Excellent	Good	Poor
(Please Specify) _____	Excellent	Good	Poor

E9. Spur blight

a) Percent of brambles treated for spur blight in 2006 _____%

b) Pesticide(s) used (circle all that apply)	Effectiveness		
	Excellent	Good	Poor
Abound (azoxystrobin)	Excellent	Good	Poor
Cabrio (pyraclostrobin)	Excellent	Good	Poor
Kumulus (sulfur)	Excellent	Good	Poor
Pristine WG (pyraclostrobin/boscalid)	Excellent	Good	Poor
Other Pesticide(s) used: Please specify: _____	Excellent	Good	Poor
Other Strategies Employed: Pruning for good air circulation	Excellent	Good	Poor
(Please Specify) _____	Excellent	Good	Poor
(Please Specify) _____	Excellent	Good	Poor

E10. Other Disease Pests (Please Specify) _____

a) Percent of brambles treated for other Diseases in 2006 _____%

b) Pesticide/Strategy(ies) used (please list)	Effectiveness		
	Excellent	Good	Poor
_____	Excellent	Good	Poor
_____	Excellent	Good	Poor

Weed Management for Brambles

F1. Which of the following weed management practices did you use for brambles? (Please circle the practices used and their effectiveness: excellent, good, poor.)

Practice (circle all that apply)	Effectiveness		
Mechanical cultivation	Excellent	Good	Poor
Hoeing	Excellent	Good	Poor
Hand pulling	Excellent	Good	Poor
Banded herbicide application (over the row only)	Excellent	Good	Poor
Shielded application (between rows)	Excellent	Good	Poor
Spot treatment	Excellent	Good	Poor
No-till or zone-till	Excellent	Good	Poor
Mulch (please specify) _____	Excellent	Good	Poor
Other (please specify) _____	Excellent	Good	Poor
Other (please specify) _____	Excellent	Good	Poor

F2. Please indicate the number of applications that you made in 2006 for the following herbicides for managing weeds. (Please fill in an answer for each herbicide)

Pesticide(s) used	Number of Applications					
	1	2	3	4	none	other _____
Caliber 90 (simazine)	1	2	3	4	none	other _____
Casoron 50WP/4G (dichlobenil)	1	2	3	4	none	other _____
Devrinol 50 DF (napropamide)	1	2	3	4	none	other _____
Fusilade DX (fluazifop)	1	2	3	4	none	other _____
Gallery 75D (isozaben)	1	2	3	4	none	other _____
Gramoxone Max (paraquat)	1	2	3	4	none	other _____
Poast (sethoxydim)	1	2	3	4	none	other _____
Princep 4L (simazine)	1	2	3	4	none	other _____
Roundup Weather Max (glyphosate)	1	2	3	4	none	other _____
Scythe (pelargonic acid)	1	2	3	4	none	other _____
Sinbar 80WP (terbacil)	1	2	3	4	none	other _____
Solicam 80DF (norflurazon)	1	2	3	4	none	other _____
Surflan 4AS (oryzalin)	1	2	3	4	none	other _____
Touchdown (sulfosate)	1	2	3	4	none	other _____
Other Pesticide(s) used:						
Please specify: _____	1	2	3	4	none	other _____
Please specify: _____	1	2	3	4	none	other _____
Please specify: _____	1	2	3	4	none	other _____
Please specify: _____	1	2	3	4	none	other _____
Please specify: _____	1	2	3	4	none	other _____

For each of the following weed management practices, indicate the **percentage of your total bramble crop managed in 2006**. If you **did not use the practice**, put “0” in the “percent treated” slot. If question is left blank, we won’t know if you meant zero percent treated or if you skipped the question. Please circle the pesticides that you used and the effectiveness of the management strategy (**excellent, good, poor**). If you used non-pesticide strategies to manage weeds please specify them in the “**Other Strategies Employed**” area.

F2. Transplant Year: Preemergence weed control

a) **Percent of bramble acreage treated with preemergent herbicides in 2006 _____%**

b) Pesticide(s) used (circle all that apply)	Effectiveness		
	Excellent	Good	Poor
Caliber 90 (simazine)	Excellent	Good	Poor
Devrinol 50 DF (napropamide)	Excellent	Good	Poor
Gallery 75D (isozaben)	Excellent	Good	Poor
Princep 4L (simazine)	Excellent	Good	Poor
Surflan 4AS (oryzalin)	Excellent	Good	Poor

Other Herbicide(s) used:

Please Specify _____	Excellent	Good	Poor
Please Specify _____	Excellent	Good	Poor

F3. Transplant Year: Postemergence weed control

a) Percent of bramble acreage treated with postemergent herbicides in 2006 _____%

b) Pesticide(s) used (circle all that apply)	Effectiveness		
	Excellent	Good	Poor
Fusilade DX (fluazifop)	Excellent	Good	Poor
Poast (sethoxydim)	Excellent	Good	Poor
Scythe (pelargonic acid)	Excellent	Good	Poor
Touchdown (sulfosate)	Excellent	Good	Poor
Other Herbicide(s) used:			
Please Specify _____	Excellent	Good	Poor
Please Specify _____	Excellent	Good	Poor

F4. Established plantings: Preemergence weed control

a) Percent of bramble acreage treated with preemergent herbicides in 2006 _____%

b) Pesticide(s) used (circle all that apply)	Effectiveness		
	Excellent	Good	Poor
Casoron 50WP/4G (dichlobenil)	Excellent	Good	Poor
Devrinol 50 DF (napropamide)	Excellent	Good	Poor
Princep 4L (simazine)	Excellent	Good	Poor
Sinbar 80WP (terbacil)	Excellent	Good	Poor
Solicam 80DF (norflurazon)	Excellent	Good	Poor
Surflan 4AS (oryzalin)	Excellent	Good	Poor
Other Herbicide(s) used:			
Please Specify _____	Excellent	Good	Poor
Please Specify _____	Excellent	Good	Poor

F5. Established plantings: Postemergence weed control

a) Percent of bramble acreage treated with postemergent herbicides in 2006 _____%

b) Pesticide(s) used (circle all that apply)	Effectiveness		
	Excellent	Good	Poor
Gramoxone Max (paraquat)	Excellent	Good	Poor
Poast (sethoxydim)	Excellent	Good	Poor
Roundup Weather Max (glyphosate)	Excellent	Good	Poor
Scythe (pelargonic acid)	Excellent	Good	Poor
Other Herbicide(s) used:			
Please Specify _____	Excellent	Good	Poor
Please Specify _____	Excellent	Good	Poor

Continue to next page

Vertebrate Pest Management for Brambles

G1. Which strategies do you use to manage birds in brambles? (Please circle the strategies that you use and their effectiveness: excellent, good, poor.)

Type of protection used (circle all that apply)	Effectiveness of Management		
Avitrol bait	Excellent	Good	Poor
Cannons	Excellent	Good	Poor
Recorded distress call devices	Excellent	Good	Poor
Scare-eye balloons	Excellent	Good	Poor
Shell crackers	Excellent	Good	Poor
Other visual or sound devices Please specify _____	Excellent	Good	Poor
Other strategies: Please Specify _____	Excellent	Good	Poor
Please Specify _____	Excellent	Good	Poor

G2. Which strategies do you use to manage deer in brambles? (Please circle the strategies that you use and their effectiveness: excellent, good, poor.)

Type of protection used (circle all that apply)	Effectiveness of Management		
Fence (non electric)	Excellent	Good	Poor
Electric fence	Excellent	Good	Poor
Baited (peanut butter) electric fence	Excellent	Good	Poor
Capsaicin (Spray repellent)	Excellent	Good	Poor
Hinder (Spray repellent)	Excellent	Good	Poor
Deer Away (Spray repellent)	Excellent	Good	Poor
Other repellents Please specify _____	Excellent	Good	Poor
Dogs	Excellent	Good	Poor
Hunting	Excellent	Good	Poor
Hanging soap	Excellent	Good	Poor
Other strategies: Please Specify _____	Excellent	Good	Poor
Please Specify _____	Excellent	Good	Poor

G3. Which strategies do you use to manage raccoons in brambles? (Please circle the strategies that you use and their effectiveness: excellent, good, poor.)

Type of protection used (circle all that apply)	Effectiveness of Management		
Electric fence	Excellent	Good	Poor
Plant trap crop at edge	Excellent	Good	Poor
Trapping	Excellent	Good	Poor
Dogs	Excellent	Good	Poor
Other strategies: Please Specify _____	Excellent	Good	Poor
Please Specify _____	Excellent	Good	Poor

G4. Which strategies do you use to manage bears in brambles? (Please list the strategies that you use and their effectiveness: excellent, good, poor.)

Type of strategy used (please list)	<u>Effectiveness of Management</u>		
_____	Excellent	Good	Poor
_____	Excellent	Good	Poor
_____	Excellent	Good	Poor

G5. Which strategies do you use to manage turkeys in brambles? (Please list the strategies that you use and their effectiveness: excellent, good, poor.)

Type of strategy used (please list)	<u>Effectiveness of Management</u>		
_____	Excellent	Good	Poor
_____	Excellent	Good	Poor
_____	Excellent	Good	Poor

G6. Which strategies do you use to manage pine voles in brambles? (Please list the strategies that you use and their effectiveness: excellent, good, poor.)

Type of strategy used (please list)	<u>Effectiveness of Management</u>		
_____	Excellent	Good	Poor
_____	Excellent	Good	Poor
_____	Excellent	Good	Poor

G7. Other Vertebrate Pests and Strategies (Please list vertebrate, list strategies used and circle their effectiveness)

Please Specify Pest(s)	Strategy(ies) used	<u>Effectiveness of Management</u>		
_____	_____	Excellent	Good	Poor
_____	_____	Excellent	Good	Poor
_____	_____	Excellent	Good	Poor
_____	_____	Excellent	Good	Poor
_____	_____	Excellent	Good	Poor
_____	_____	Excellent	Good	Poor

Continue to next page

Decision Making:

H1. Please select the single option that best describes your use of monitoring for insect or mite pests.

- a) Treatments primarily made on calendar basis, with few decisions based on monitoring.
- b) Informal observations influence decisions, but formal sampling methods and thresholds not used.
- c) Sampling according to standard procedures or with traps, observations compared to pest threshold.
- d) Sampling or trapping with thresholds, plus use of pest models to determine need or timing for sampling and control.

H2. Please select the single option that best describes your use of monitoring for disease management.

- a) Treatments primarily made on calendar basis, with few decisions based on monitoring.
- b) Decisions based on informal observations, but formal leaf/fruit sampling or infection period tracking not used.
- c) Infection period duration or intensity estimated, leaf or fruit sampling for symptoms.
- d) Detailed infection period tracking and sampling, and/or use of disease models.

H3. Please select the single option that best describes your use of monitoring for weed management.

- a) Treatments made on calendar basis, with few decisions based on monitoring.
- b) Decisions based on informal observations, but no formal weed scouting or weed mapping.
- c) Decisions based on informal observations, but weed scouting records or weed map used for a few special situations.
- d) Weed scouting records or weed map used for most plantings.

H4. Who does insect trapping or field scouting on your farm? Please circle ALL that apply.

- a) You
- b) Private IPM scout/consultant
- c) Farm employee or family member
- d) Extension and/or University employee
- e) No one
- f) Other (specify: _____)

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H5. How important are these information sources in making your pest management decisions?

Please circle a rating for each item.

a) Twilight meetings, field days	Very important	Somewhat important	Not Important
b) Off-season educational meetings	Very important	Somewhat important	Not Important
c) New England Small Fruit Guide	Very important	Somewhat important	Not Important
d) Extension newsletters or pest alerts	Very important	Somewhat important	Not Important
e) Web sites	Very important	Somewhat important	Not Important
f) Trade publications	Very important	Somewhat important	Not Important
g) Other growers	Very important	Somewhat important	Not Important
h) Suppliers/dealers	Very important	Somewhat important	Not Important
i) University/Extension staff	Very important	Somewhat important	Not Important
j) Private consultant	Very Important	Somewhat Important	Not Important
k) Other _____	Very Important	Somewhat Important	Not Important

H6. Have you visited the PRONewEngland.org web site? (PRO = Pest Resources Online)

Please circle one answer Yes No

If Yes, was it useful enough that you plan to visit again? Yes No

If you have visited PRONewEngland.org, please share any comments or suggestions.

H7. How often do you use the following weather information in making your pest management decisions? Please circle a rating for each item.

a) Forecasts for timing of next rain	Frequently	Occasionally	Rarely
b) Rainfall accumulation (for effect on spray residue)	Frequently	Occasionally	Rarely
c) Temperature or degree days	Frequently	Occasionally	Rarely
d) Humidity or leaf wetness hours	Frequently	Occasionally	Rarely
e) Wind speed forecast	Frequently	Occasionally	Rarely

H8 How would you describe your crop production practices? (please circle your answer)

Conventional

IPM

Organic

Other (please specify: _____)

Continue to next page

Pesticide Practices:

H9. How important are these factors to you when choosing pesticides for use on your farm? Please circle a rating for each item.

	How Important?		
a) Applicator hazard (toxicity to humans)	Very Important	Somewhat Important	Not Important
b) Cost per Treatment	Very Important	Somewhat Important	Not Important
c) Customer relations (food safety concerns)	Very Important	Somewhat Important	Not Important
d) Effectiveness against pest compared to alternative products	Very Important	Somewhat Important	Not Important
e) Formulation (liquid vs. dry, water soluble bags)	Very Important	Somewhat Important	Not Important
f) Impact on beneficial species (parasites, predators, pollinators)	Very Important	Somewhat Important	Not Important
g) Label restrictions (reentry & preharvest interval, protective equip.)	Very Important	Somewhat Important	Not Important
h) Size or type of packaging	Very Important	Somewhat Important	Not Important
i) Other potential nontarget and environmental impacts	Very Important	Somewhat Important	Not Important
j) Storage requirements	Very Important	Somewhat Important	Not Important

H10. How often do you use the following personal protective equipment and protective clothing when mixing and/or applying pesticides. Please circle a rating for each item.

Personal Protective Equipment	How Often do you wear			
Long Pants	Always	Occasionally	Never	Not Applicable
Long-sleeved shirt	Always	Occasionally	Never	Not Applicable
Gloves	Always	Occasionally	Never	Not Applicable
Goggles	Always	Occasionally	Never	Not Applicable
Face Shield	Always	Occasionally	Never	Not Applicable
Nitrile Gloves	Always	Occasionally	Never	Not Applicable
Latex Gloves	Always	Occasionally	Never	Not Applicable
Cotton Gloves	Always	Occasionally	Never	Not Applicable
Chemical Resistant Suit	Always	Occasionally	Never	Not Applicable
Respirator	Always	Occasionally	Never	Not Applicable
Boots (chemical resistant)	Always	Occasionally	Never	Not Applicable

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H11. Which of the following pesticide application equipment do you use for bramble? Please circle all that apply)

- a) Air blast sprayer
- b) Boom sprayer without drop nozzles
- c) Boom sprayer with drop nozzles
- d) Shielded sprayer
- e) Back pack sprayer
- f) Wipers for contact herbicides
- g) Air assisted sprayer
- h) Other (specify: _____)
- i) None of the above

H12. Please indicate which of the activities workers typically carry out in areas treated with pesticide within the previous 30 days.

For this question “Frequently” means that a worker would spend more than 10 days in a typical growing season doing this activity in pesticide treated areas in a single growing season, “Occasionally” is for 1 – 10 days, and “Rarely” is for an average of less than 1 day per season. Please circle an answer for each item.

a)	Soil preparation	Frequently	Occasionally	Rarely
b)	Planting, Seeding	Frequently	Occasionally	Rarely
c)	Hand weeding	Frequently	Occasionally	Rarely
d)	Thinning or Pruning	Frequently	Occasionally	Rarely
e)	Fertilization, irrigation	Frequently	Occasionally	Rarely
f)	Scouting	Frequently	Occasionally	Rarely
g)	Hand harvest	Frequently	Occasionally	Rarely
h)	Post harvest field work	Frequently	Occasionally	Rarely
i)	Other (please specify)	Frequently	Occasionally	Rarely

Continue to next page

Priorities:

Research, Education and Regulatory Priorities:

I1. Please list needs or ideas (as many as you wish) that you think should be given high priority for bramble pest management RESEARCH.

I2. Please needs or ideas (as many as you wish) that you think should be given high priority for bramble pest management EDUCATION.

I3. Please needs or ideas (as many as you wish) that you think should be given high priority for bramble pest management REGULATORY CHANGES.

I4. Any other comments about bramble pest management or this survey.

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H11. In order to avoid sending an incorrect survey to you in the future please circle the crops that you normally grow for Sale.

Vegetables			Tree Fruit	Small Fruit	Field Crops
Asparagus	Garlic	Pumpkin	Apple	Blueberry	Field Corn
Bean	Gourds	Radish	Cherry	Cranberry	Tobacco
Beet	Herbs	Rutabaga	Peach	Grapes	Hay
Broccoli	Leeks	Spinach	Pear	Wine Grape	Alfalfa
Cabbage	Lettuce	Summer Squash	Plum	Strawberry	Other Feed Crops
Carrot	Muskmelon	Sweet corn			
Cauliflower	Onion	Swiss Chard			Other Crops
Celery	Parsley	Tomato			
Cucumber	Pea	Turnip		Christmas Trees	Honey
Eggplant	Pepper	Watermelon		Greenhouse Crops	Maple Syrup
Endive	Popcorn	Winter squash		Nursery	
Escarole	Potato				

Thank you for your help!

Summarized survey results will be posted online at PRONewEngland.org.

Please return your questionnaire in the enclosed envelope to:

**UMass Extension Pesticide Education
212 Agricultural Engineering Bldg.
University of Massachusetts
Amherst, MA 01003-0210**

If you have any questions about this survey please contact Natalia P. Clifton at (413) 545-1044 or email at nclifton@psis.umass.edu