

Snap Bean & Lima Bean Management Survey
Pest management Resources Online for New England
(PRO New England)

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

Do you grow Snap Beans (green, wax, purple) and/or Lima Beans for sale? (Please circle your answer)

Yes ----> continue below

No ----> if no, please 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 snap beans and lima beans only.

A1. How many acres (or square feet) of beans did you manage in 2002? (Please select one and fill in your answer)

_____ Acres or _____ Square Feet

A2. Over the past five years, what is your average annual yield of beans per acre? (Please select one and fill in your answer)

_____ Pounds/Acre or _____ Bushels/Acre

A3. What percentage of your bean crop is:

Green Beans	_____%
Yellow (Wax) Beans	_____%
Purple Beans	_____%
Lima Beans	_____%
Other (specify _____)	_____%
Total	100 %

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

Fresh market, retail (pre-picked)	_____%
U-Pick	_____%
Fresh market, wholesale	_____%
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 @ent.umass.edu](mailto:nclifton@ent.umass.edu)

Horticultural Management for BEANS

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

- fresh manure
- composted manure
- drip irrigation
- overhead irrigation
- staking/trellising
- Other (please specify: _____)

B2. 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
- More than 1 time each year
- Every other year
- Every third year
- Other (please specify) _____

General Pest Management Information for BEANS

C1. Please estimate your average number of pesticide applications for beans used in a typical year:

- Number of times you spray for insects each year _____
- Number of times you spray for mites each year _____
- Number of times you spray for weeds each year _____
- Number of times you spray diseases & viruses each year _____

C2. Which of these pests require routine annual control, require occasional control, are rarely a problem, or are never a problem on your farm? (Please circle your answers)

Weeds & Vertebrate pests

Annual Broadleaf Weeds	Routine, annual control	Occasional control	Rarely a problem	Never a problem
Perennial Broadleaf Weeds	Routine, annual control	Occasional control	Rarely a problem	Never a problem
Annual Grasses	Routine, annual control	Occasional control	Rarely a problem	Never a problem
Perennial Grasses	Routine, annual control	Occasional control	Rarely a problem	Never a problem
Vertebrate pests (Specify: _____)	Routine, annual control	Occasional control	Rarely a problem	

C3. Which of these insects and mites require routine annual control, require occasional control, are rarely a problem, or are never a problem on your farm? (Please circle your answers)

Insects & Mites

Aphids	Routine, annual control	Occasional pest	Rarely a problem	Never a problem
European Corn Borer	Routine, annual control	Occasional pest	Rarely a problem	Never a problem
Corn Ear Worm	Routine, annual control	Occasional pest	Rarely a problem	Never a problem
Cabbage Looper	Routine, annual control	Occasional pest	Rarely a problem	Never a problem
Leafhoppers	Routine, annual control	Occasional pest	Rarely a problem	Never a problem
Mexican Bean Beetle	Routine, annual control	Occasional pest	Rarely a problem	Never a problem
Seedcorn Maggot	Routine, annual control	Occasional pest	Rarely a problem	Never a problem
Twospotted Spider Mite	Routine, annual control	Occasional pest	Rarely a problem	Never a problem
Tarnished Plant Bug	Routine, annual control	Occasional pest	Rarely a problem	Never a problem
Other insects/mites: (Specify: _____)	Routine, annual control	Occasional control	Rarely a problem	

C4. Which of these viruses and diseases require routine annual control, require occasional control, are rarely a problem, or are never a problem on your farm? (Please circle your answers)

Viruses & Diseases

Anthraxnose	Routine, annual control	Occasional pest	Rarely a problem	Never a problem
Downy Mildew	Routine, annual control	Occasional pest	Rarely a problem	Never a problem
Bacterial Blights	Routine, annual control	Occasional pest	Rarely a problem	Never a problem
Bean Common Mosaic Virus	Routine, annual control	Occasional pest	Rarely a problem	Never a problem
Bean Yellow Mosaic Virus	Routine, annual control	Occasional pest	Rarely a problem	Never a problem
Rust	Routine, annual control	Occasional pest	Rarely a problem	Never a problem
Seed Decay	Routine, annual control	Occasional pest	Rarely a problem	Never a problem
White Mold	Routine, annual control	Occasional pest	Rarely a problem	Never a problem
Other diseases:(Specify: _____)	Routine, annual control	Occasional control	Rarely a problem	

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

General Pest Management Information for BEANS

For each of the following insects and mites, indicate the **percentage of your bean crop treated in 2002**. If you **did not treat for the pest**, put “0” in the “percent treated” slot. Please circle the pesticides that you used, the rate (**full** or **reduced**) that was used and the effectiveness of the control strategy (**excellent, good, poor**). For all pesticides used, “**Full Rate**” means highest labeled rate and “**Reduced Rate**” means less than the highest labeled rate. If you used non-pesticide strategies to control a pest please specify them in the “**Other Strategies Employed**” area.

D1. Aphids

a) **Percent of bean crop treated for aphids in 2002** _____ %

b) Pesticide(s) used (circle all that apply)	Rate used (based on label guidelines)		Effectiveness of Control		
	<u>Full Rate</u>	<u>Reduced Rate</u>	<u>Excellent</u>	<u>Good</u>	<u>Poor</u>
Asana XL (esfenvalerate)	Full	Reduced	Excellent	Good	Poor
Dimethoate 4EC	Full	Reduced	Excellent	Good	Poor
Lannate LV (methomyl)	Full	Reduced	Excellent	Good	Poor
Malathion 57EC	Full	Reduced	Excellent	Good	Poor
Orthene 97 (acephate)	Full	Reduced	Excellent	Good	Poor
Other Pesticide(s) used: (Please Specify) _____	Full	Reduced	Excellent	Good	Poor
Other Strategies Employed: (Please Specify) _____			Excellent	Good	Poor
(Please Specify) _____			Excellent	Good	Poor

D2. European Corn Borer

a) **Percent of bean crop treated for European corn borer in 2002** _____ %

b) Pesticide(s) used (circle all that apply)	Rate used (based on label guidelines)		Effectiveness of Control		
	<u>Full Rate</u>	<u>Reduced Rate</u>	<u>Excellent</u>	<u>Good</u>	<u>Poor</u>
Spintor 2 SC (Spinosad)	Full	Reduced	Excellent	Good	Poor
Other Pesticide(s) used: (Please Specify) _____	Full	Reduced	Excellent	Good	Poor
Other Strategies Employed: (Please Specify) _____			Excellent	Good	Poor
(Please Specify) _____			Excellent	Good	Poor

D3. Corn Ear Worm

a) Percent of bean crop treated for corn ear worm in 2002 _____%

b) Pesticide(s) used (circle all that apply)	Rate used (based on label guidelines)		Effectiveness of Control		
	Full Rate	Reduced Rate	Excellent	Good	Poor
Spintor 2 SC (Spinosad)	Full	Reduced	Excellent	Good	Poor
Other Pesticide(s) used: (Please Specify) _____	Full	Reduced	Excellent	Good	Poor
Other Strategies Employed: (Please Specify) _____			Excellent	Good	Poor
(Please Specify) _____			Excellent	Good	Poor

D4. Cabbage Looper

a) Percent of bean crop treated for cabbage looper in 2002 _____%

b) Pesticide(s) used (circle all that apply)	Rate used (based on label guidelines)		Effectiveness of Control		
	Full Rate	Reduced Rate	Excellent	Good	Poor
Spintor 2 SC (Spinosad)	Full	Reduced	Excellent	Good	Poor
Other Pesticide(s) used: (Please Specify) _____	Full	Reduced	Excellent	Good	Poor
Other Strategies Employed: (Please Specify) _____			Excellent	Good	Poor
(Please Specify) _____			Excellent	Good	Poor

D5. Twospotted Spider Mite

a) Percent of bean crop treated for twospotted spider mite in 2002 _____%

b) Pesticide(s) used (circle all that apply)	Rate used (based on label guidelines)		Effectiveness of Control		
	Full Rate	Reduced Rate	Excellent	Good	Poor
Dimethoate 4EC	Full	Reduced	Excellent	Good	Poor
Kelthane MF (dicofol)	Full	Reduced	Excellent	Good	Poor
Metasystox-R (oxydemeton-methyl)	Full	Reduced	Excellent	Good	Poor
Other Pesticide(s) used: (Please Specify) _____	Full	Reduced	Excellent	Good	Poor
Other Strategies Employed: (Please Specify) _____			Excellent	Good	Poor
(Please Specify) _____			Excellent	Good	Poor

D6. Leafhoppers

a) Percent of bean crop treated for leafhoppers in 2002 _____%

b) Pesticide(s) used (circle all that apply)	Rate used (based on label guidelines)		Effectiveness of Control		
	Full Rate	Reduced Rate	Excellent	Good	Poor
Asana XL (esfenvalerate)	Full	Reduced	Excellent	Good	Poor
Dimethoate 4EC	Full	Reduced	Excellent	Good	Poor
Lannate LV (methomyl)	Full	Reduced	Excellent	Good	Poor
Malathion 57EC	Full	Reduced	Excellent	Good	Poor
Orthene 97 (acephate)	Full	Reduced	Excellent	Good	Poor
PyGanic EC5.0 (pyrethrin)	Full	Reduced	Excellent	Good	Poor
Surround WP (kaolin)	Full	Reduced	Excellent	Good	Poor
Other Pesticide(s) used: (Please Specify) _____	Full	Reduced	Excellent	Good	Poor
Other Strategies Employed: (Please Specify) _____ (Please Specify) _____			Excellent	Good	Poor

D7. Mexican Bean Beetle

a) Percent of bean crop treated for Mexican bean beetle in 2002 _____%

b) Pesticide(s) used (circle all that apply)	Rate used (based on label guidelines)		Effectiveness of Control		
	Full Rate	Reduced Rate	Excellent	Good	Poor
Asana XL (esfenvalerate)	Full	Reduced	Excellent	Good	Poor
Dimethoate 4EC	Full	Reduced	Excellent	Good	Poor
Lannate LV (methomyl)	Full	Reduced	Excellent	Good	Poor
Malathion 57EC	Full	Reduced	Excellent	Good	Poor
Orthene 97 (acephate)	Full	Reduced	Excellent	Good	Poor
Other Pesticide(s) used: (Please Specify) _____	Full	Reduced	Excellent	Good	Poor
Other Strategies Employed: (Please Specify) _____ (Please Specify) _____			Excellent	Good	Poor

D8. Seedcorn Maggot

a) Percent of bean crop treated for seedcorn maggot in 2002 _____ %

b) Pesticide(s) used (circle all that apply)	Rate used (based on label guidelines)		Effectiveness of Control		
	Full Rate	Reduced Rate	Excellent	Good	Poor
Thimet 20G (phorate)	Full	Reduced	Excellent	Good	Poor
Other Pesticide(s) used: (Please Specify) _____	Full	Reduced	Excellent	Good	Poor
Other Strategies Employed: (Please Specify) _____			Excellent	Good	Poor
(Please Specify) _____			Excellent	Good	Poor

D9. Tarnished Plant Bug

a) Percent of bean crop treated for tarnished plant bug in 2002 _____ %

b) Pesticide(s) used (circle all that apply)	Rate used (based on label guidelines)		Effectiveness of Control		
	Full Rate	Reduced Rate	Excellent	Good	Poor
Dimethoate 4EC	Full	Reduced	Excellent	Good	Poor
Lannate LV (methomyl)	Full	Reduced	Excellent	Good	Poor
Orthene 97 (acephate)	Full	Reduced	Excellent	Good	Poor
Other Pesticide(s) used: (Please Specify) _____	Full	Reduced	Excellent	Good	Poor
Other Strategies Employed: (Please Specify) _____			Excellent	Good	Poor
(Please Specify) _____			Excellent	Good	Poor

D10. Other Insect/Mite Pest(s) Please Specify _____

a) Percent of bean crop treated for Other Insect/Mite(s) in 2002 _____ %

b) Pesticide/Strategy(ies) used (please list)	Rate used (based on label guidelines)		Effectiveness of Control		
	Full Rate	Reduced Rate	Excellent	Good	Poor
_____	Full	Reduced	Excellent	Good	Poor
_____	Full	Reduced	Excellent	Good	Poor

Disease Management for BEANS

For each of the following diseases and viruses, indicate the **percentage of your bean crop treated in 2002**. If you **did not treat for the pest**, put “0” in the “percent treated” slot. Please circle the pesticides that you used, the rate (**full or reduced**) that was used and the effectiveness of the control strategy (**excellent, good, poor**). For all pesticides used, “**Full Rate**” means highest labeled rate and “**Reduced Rate**” means less than the highest labeled rate. If you used non-pesticide strategies to control a pest please specify them in the “**Other Strategies Employed**” area.

E1. Anthracnose

a) Percent of bean crop treated for Anthracnose in 2002 _____ %

b) Pesticide(s) used (circle all that apply)	Rate used (based on label guidelines)		Effectiveness of Control		
	Full Rate	Reduced Rate	Excellent	Good	Poor
Basicop 53WP (basic copper sulfate)	Full	Reduced	Excellent	Good	Poor
Bravo Ultrex 82 WDG (chlorothalonil)	Full	Reduced	Excellent	Good	Poor
Other Pesticide(s) used:					
(Please Specify) _____	Full	Reduced	Excellent	Good	Poor
(Please Specify) _____	Full	Reduced	Excellent	Good	Poor
Other Strategies Employed: (Please Specify) _____			Excellent	Good	Poor
(Please Specify) _____			Excellent	Good	Poor

E2. Downy Mildew

a) Percent of bean crop treated for Downy Mildew in 2002 _____ %

b) Pesticide(s) used (circle all that apply)	Rate used (based on label guidelines)		Effectiveness of Control		
	Full Rate	Reduced Rate	Excellent	Good	Poor
Basicop 53WP (basic copper sulfate)	Full	Reduced	Excellent	Good	Poor
Bravo Ultrex 82 WDG (chlorothalonil)	Full	Reduced	Excellent	Good	Poor
Other Pesticide(s) used:					
(Please Specify) _____	Full	Reduced	Excellent	Good	Poor
(Please Specify) _____	Full	Reduced	Excellent	Good	Poor
Other Strategies Employed: (Please Specify) _____			Excellent	Good	Poor
(Please Specify) _____			Excellent	Good	Poor

E3. Bacterial Blights

a) Percent of bean crop treated for Bacterial Blights in 2002 _____%

b) Pesticide(s) used (circle all that apply)	Rate used (based on label guidelines)		Effectiveness of Control		
	Full Rate	Reduced Rate	Excellent	Good	Poor
Kocide 4.5 LF (cupric hydroxide)	Full	Reduced	Excellent	Good	Poor
Other Pesticide(s) used: (Please Specify) _____	Full	Reduced	Excellent	Good	Poor
Other Strategies Employed: (Please Specify) _____			Excellent	Good	Poor
(Please Specify) _____			Excellent	Good	Poor

E4. Rust

a) Percent of bean crop treated for Rust in 2002 _____%

b) Pesticide(s) used (circle all that apply)	Rate used (based on label guidelines)		Effectiveness of Control		
	Full Rate	Reduced Rate	Excellent	Good	Poor
Bravo Ultrex 82 WDG (chlorothalonil)	Full	Reduced	Excellent	Good	Poor
Nova (myclobutanil)	Full	Reduced	Excellent	Good	Poor
Other Pesticide(s) used: (Please Specify) _____	Full	Reduced	Excellent	Good	Poor
Other Strategies Employed: (Please Specify) _____			Excellent	Good	Poor
(Please Specify) _____			Excellent	Good	Poor

E5. White Mold

a) Percent of bean crop treated for White Mold in 2002 _____%

b) Pesticide(s) used (circle all that apply)	Rate used (based on label guidelines)		Effectiveness of Control		
	Full Rate	Reduced Rate	Excellent	Good	Poor
Benlate 50SP (benomyl)	Full	Reduced	Excellent	Good	Poor
Rovral 50W (iprodione)	Full	Reduced	Excellent	Good	Poor
Topsin-M 70W (thiophanate-methyl)	Full	Reduced	Excellent	Good	Poor
Other Pesticide(s) used: (Please Specify) _____	Full	Reduced	Excellent	Good	Poor
Other Strategies Employed: (Please Specify) _____			Excellent	Good	Poor
(Please Specify) _____			Excellent	Good	Poor

E6. Other Disease/Virus Pests (Please Specify) _____

a) Percent of bean crop treated for other Diseases in 2002 _____ %

b) Pesticide(s) used (please list)	Rate used (based on label guidelines)		Effectiveness of Control		
	Full Rate	Reduced Rate	Excellent	Good	Poor
_____	Full	Reduced	Excellent	Good	Poor
_____	Full	Reduced	Excellent	Good	Poor
Other Strategies Employed: (Please Specify) _____			Excellent	Good	Poor
(Please Specify) _____			Excellent	Good	Poor

E7. Other Disease/Virus Pests (Please Specify) _____

b) Percent of bean crop treated for other Diseases in 2002 _____ %

b) Pesticide(s) used (please list)	Rate used (based on label guidelines)		Effectiveness of Control		
	Full Rate	Reduced Rate	Excellent	Good	Poor
_____	Full	Reduced	Excellent	Good	Poor
_____	Full	Reduced	Excellent	Good	Poor
Other Strategies Employed: (Please Specify) _____			Excellent	Good	Poor
(Please Specify) _____			Excellent	Good	Poor

E8. Cultural practices used to control diseases in beans (Please list cultural practices used and circle the effectiveness of the control.)

<u>Cultural practices used</u>	<u>Effectiveness of Control</u>		
_____	Excellent	Good	Poor
_____	Excellent	Good	Poor
_____	Excellent	Good	Poor
_____	Excellent	Good	Poor
_____	Excellent	Good	Poor

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Weed Management for BEANS

For each of the following weed control practices, indicate the **percentage of your bean crop treated in 2002**. If you **did not use the practice**, put “0” in the “percent treated” slot. Please circle the pesticides that you used, the rate (**full or reduced**) that was used and the effectiveness of the control strategy (**excellent, good, poor**). For all pesticides used, “**Full Rate**” means highest labeled rate and “**Reduced Rate**” means less than the highest labeled rate.

F1. Stale Seedbed

a) Percent of bean crop treated with stale seedbed applications in 2002 _____ %

b) Pesticide(s) used (circle all that apply)	Rate used (based on label guidelines)		Effectiveness of Control		
	Full Rate	Reduced Rate	Excellent	Good	Poor
Gramoxone Max 3S (paraquat)	Full	Reduced	Excellent	Good	Poor
Roundup Ultra 4S (glyphosate)	Full	Reduced	Excellent	Good	Poor
Scythe 4.2 (pelargonic acid)	Full	Reduced	Excellent	Good	Poor
Other Herbicide(s) used:					
Please Specify _____	Full	Reduced	Excellent	Good	Poor
Please Specify _____	Full	Reduced	Excellent	Good	Poor

F2. Preplant Incorporated

a) Percent of bean crop treated with preplant incorporated applications in 2002 _____ %

b) Pesticide(s) used (circle all that apply)	Rate used (based on label guidelines)		Effectiveness of Control		
	Full Rate	Reduced Rate	Excellent	Good	Poor
Dual Magnum (metolachlor)	Full	Reduced	Excellent	Good	Poor
Eptam 7E (EPTC)	Full	Reduced	Excellent	Good	Poor
Eptam 7E plus Treflan 4E	Full	Reduced	Excellent	Good	Poor
Frontier 6.0 (dimethenamid)	Full	Reduced	Excellent	Good	Poor
Prowl 4EC (pendimethalin)	Full	Reduced	Excellent	Good	Poor
Sonalan HFP (ethalfluralin)	Full	Reduced	Excellent	Good	Poor
Treflan 4E (trifluralin)	Full	Reduced	Excellent	Good	Poor
Other Herbicide(s) used:					
Please Specify _____	Full	Reduced	Excellent	Good	Poor
Please Specify _____	Full	Reduced	Excellent	Good	Poor

F3. At Planting

a) Percent of bean crop treated with at planting applications in 2002 _____%

b) Pesticide(s) used (circle all that apply)	Rate used (based on label guidelines)		Effectiveness of Control		
	Full Rate	Reduced Rate	Excellent	Good	Poor
Dacthal 75WP (DCPA)	Full	Reduced	Excellent	Good	Poor
Other Herbicide(s) used:					
Please Specify _____	Full	Reduced	Excellent	Good	Poor
Please Specify _____	Full	Reduced	Excellent	Good	Poor

F4. Postemergence

a) Percent of bean crop treated with postemergence applications in 2002 _____%

b) Pesticide(s) used (circle all that apply)	Rate used (based on label guidelines)		Effectiveness of Control		
	Full Rate	Reduced Rate	Excellent	Good	Poor
Assure II 0.88 EC (quizalofop)	Full	Reduced	Excellent	Good	Poor
Basagran 4E (bentazon)	Full	Reduced	Excellent	Good	Poor
Poast 1.53EC (sethoxydim)	Full	Reduced	Excellent	Good	Poor
Scythe 4.2 (pelargonic acid)	Full	Reduced	Excellent	Good	Poor
Other Herbicide(s) used:					
Please Specify _____	Full	Reduced	Excellent	Good	Poor
Please Specify _____	Full	Reduced	Excellent	Good	Poor

F5. Which cultural weed management practices did you use? (Please circle the practices used and the effectiveness of control: excellent, good, poor.)

Practice (circle all that apply)	Effectiveness of Control		
Mowing	Excellent	Good	Poor
Mulching	Excellent	Good	Poor
Cultivation	Excellent	Good	Poor
Hand weeding	Excellent	Good	Poor
None			
Other (please specify) _____	Excellent	Good	Poor
Other (please specify) _____	Excellent	Good	Poor
Other (please specify) _____	Excellent	Good	Poor

Vertebrate Pest Management for BEANS

G1. Which strategies do you use to control bird damage? (Please circle the strategies that you use and the effectiveness of control: excellent, good, poor.)

<u>Strategies employed (circle all that apply)</u>	<u>Effectiveness of Control</u>		
Scare eye balloons	Excellent	Good	Poor
Flash Tape	Excellent	Good	Poor
Propane Canons	Excellent	Good	Poor
Owls	Excellent	Good	Poor
Netting	Excellent	Good	Poor
Distress Calls	Excellent	Good	Poor
None			
Other strategies:			
Please Specify _____	Excellent	Good	Poor
Please Specify _____	Excellent	Good	Poor

G2. Other Vertebrate Pests and Strategies (Please list vertebrate, list strategies used and circle the effectiveness of the control)

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

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Information for Management Decisions:

H1. If IPM practices such as insect trapping, degree-day accumulation, or field sampling are done, who does them? (circle all that apply)

- a) You
- b) Private IPM scout/consultant
- c) Farm employee or family member
- d) Other (specify: _____)

H2. What sampling methods are used? (circle all that apply)

- a) sampling pattern is standardized (a fixed number of leaves for each plant and a fixed number of plants per row)
- b) sampling pattern is informal
- c) insect traps are used
- d) none

H3. How important are these factors to you when choosing pesticides for use on your farm? (Please circle your answers)

		<u>How Important?</u>		
a)	Toxicity of materials available (to self, family, employees)	Very Important	Somewhat Important	Not Important
b)	Potential environmental impacts	Very Important	Somewhat Important	Not Important
c)	Safety of packaging (such as water soluble bags, etc)	Very Important	Somewhat Important	Not Important
d)	Cost per Acre/Unit	Very Important	Somewhat Important	Not Important
e)	Effectiveness (how well it does the job)	Very Important	Somewhat Important	Not Important
f)	Impact on non-target organisms including beneficials	Very Important	Somewhat Important	Not Important
g)	Phytotoxicity (potential for injury to crop)	Very Important	Somewhat Important	Not Important

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H4. How often do you use the following weather information in making your pest management decisions? (please circle your answers)

a)	Forecasts for next rain	Frequently	Occasionally	Never
b)	Rainfall totals (for effect on spray residue)	Frequently	Occasionally	Never
c)	Temperatures (for degree day models)	Frequently	Occasionally	Never
d)	Humidity and/or leaf wetness hours	Frequently	Occasionally	Never
e)	Wind speed forecast	Frequently	Occasionally	Never

H5. If available, how often would you use irrigation scheduling guidance based on observed and forecast weather? (circle your answer)

Frequently Occasionally Never Not Sure

H6. How important are these sources of information in making your pest management decisions? (please circle your answers)

a)	Twilight meetings	Very Important	Somewhat Important	Not Important
b)	Off season educational meetings	Very Important	Somewhat Important	Not Important
c)	New England Vegetable Mgmt Guide	Very Important	Somewhat Important	Not Important
d)	Newsletters	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)	Other _____	Very Important	Somewhat Important	Not Important

H7. How would you describe your crop production practices? (please circle your answer)

Conventional

IPM

Organic

Other (please specify: _____)

Please use this space for any comments that you have

Thank you for your help.

Please return your questionnaire in the enclosed envelope to:

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