

Thank you for participating in the **2019-2020 Bee Informed Partnership**  
**National Colony Loss and Management Survey**



Your participation in this research is confidential. You should be 18 years or older. All your answers will be stored and secured in an encrypted, password protected database. No personally identifiable information will be disclosed in any publication or presentation resulting from this research. At the end of the study, there is an option for you to provide us with your email address. This is completely voluntary, and your email will only be used to communicate with you about other Bee Informed Partnership activities. We will not pass on your email to a third party. Mention of a commercial product/practice in this survey does not constitute an official endorsement or approval by the Bee Informed Partnership.

**DO NOT SEND US THIS PAPER SURVEY!! WE WILL NOT ENTER ANY RESPONSES PROVIDED ON THIS PREVIEW.**

This preview of the survey is intended to allow you to look through the questions, or print a hard copy, as an aid before taking the survey online (at <https://beeinformed.org/take-survey/>)

**Completion of all or part of this survey is voluntary. If you are not comfortable answering a question, please leave it blank. That said, questions marked by an asterisk (\*) are very important to this survey ☺. Without them, your data will have limited value.**

1\* In what state(s)/territory did you keep your colonies between April 1, 2019 and April 1, 2020?  
*(Please specify ALL relevant states, including states visited for pollination, or if you manage apiaries in multiple states.)*

<input type="checkbox"/> Alabama	<input type="checkbox"/> Georgia	<input type="checkbox"/> Maryland	<input type="checkbox"/> New Jersey	<input type="checkbox"/> Rhode Island	<input type="checkbox"/> Vermont
<input type="checkbox"/> Alaska	<input type="checkbox"/> Hawaii	<input type="checkbox"/> Massachusetts	<input type="checkbox"/> New Mexico	<input type="checkbox"/> South Carolina	<input type="checkbox"/> Virginia
<input type="checkbox"/> Arizona	<input type="checkbox"/> Idaho	<input type="checkbox"/> Michigan	<input type="checkbox"/> New York	<input type="checkbox"/> South Dakota	<input type="checkbox"/> Washington
<input type="checkbox"/> Arkansas	<input type="checkbox"/> Illinois	<input type="checkbox"/> Minnesota	<input type="checkbox"/> North Carolina	<input type="checkbox"/> Tennessee	<input type="checkbox"/> West Virginia
<input type="checkbox"/> California	<input type="checkbox"/> Indiana	<input type="checkbox"/> Mississippi	<input type="checkbox"/> North Dakota	<input type="checkbox"/> Texas	<input type="checkbox"/> Wisconsin
<input type="checkbox"/> Colorado	<input type="checkbox"/> Iowa	<input type="checkbox"/> Missouri	<input type="checkbox"/> Ohio	<input type="checkbox"/> Utah	<input type="checkbox"/> Wyoming
<input type="checkbox"/> Connecticut	<input type="checkbox"/> Kansas	<input type="checkbox"/> Montana	<input type="checkbox"/> Oklahoma	<input type="checkbox"/> Other, please specify: <input type="text"/>	
<input type="checkbox"/> District of Columbia	<input type="checkbox"/> Kentucky	<input type="checkbox"/> Nebraska	<input type="checkbox"/> Oregon		
<input type="checkbox"/> Delaware	<input type="checkbox"/> Louisiana	<input type="checkbox"/> Nevada	<input type="checkbox"/> Pennsylvania		
<input type="checkbox"/> Florida	<input type="checkbox"/> Maine	<input type="checkbox"/> New Hampshire	<input type="checkbox"/> Puerto Rico		

For the purpose of this survey, a “colony” is defined as any unit of bees housed in a hive. That is, a full-sized colony, a nuc, a recently created split, a newly installed package or swarm, BUT NOT a mating nuc. It must be headed by a mated queen, or at least contain young brood, a queen cell, or a virgin queen. In other words, it should not be hopelessly queenless.

2\* Enter the **number of colonies**, regardless of future survival prospects or queen status, you had on the given date.

1 April 2019	1 October 2019	1 April 2020
<input type="text"/>	<input type="text"/>	<input type="text"/>

3\* How many colonies did you **obtain** from outside your operation? *(Please include both those that did AND did not establish in your operation after your initial installation).*

Summer (1 Apr 2019 – 1 Oct 2019)	Winter (1 Oct 2019 – 1 Apr 2020)	<i>Example of net increase by splitting:</i> - You might break down an entire colony while making splits. If you break down 1 colony into 3 smaller colonies (e.g. nucs), this represents a <b>net increase</b> of 2 colonies. - You might take extra bees and brood from strong colonies. Two strong colonies results in one new colony AND the two original colonies. This represents a <b>net increase</b> of 1 colony.
<input type="text"/>	<input type="text"/>	

4\* How much **net increase** in colonies did you make from **splitting** your own colonies? *(Please include both those that did AND did not establish. Also include packages and splits that were eventually sold).*

Summer (1 Apr 2019 – 1 Oct 2019)	Winter (1 Oct 2019 – 1 Apr 2020)	<i>Example of net decrease by combining:</i> You might combine 2 weak colonies into one. This represents a <b>net decrease</b> of 1 colony.
<input type="text"/>	<input type="text"/>	

5\* Of your **newly set up** colonies, how many **did not establish** within the first month after installation (e.g. queen was not accepted, swarm absconded, etc.)  
*Consider both those you obtained from outside your operation and colonies you made by splitting, but do not include parent colonies.*

Summer (1 Apr 2019 – 1 Oct 2019)	Winter (1 Oct 2019 – 1 Apr 2020)
<input type="text"/>	<input type="text"/>

6\* How many colonies did you **sell or give away**?  
*Remember, according to our definition of a colony, this includes full-sized colonies, as well as newly made splits/nucs and packages.*

Summer (1 Apr 2019 – 1 Oct 2019)	Winter (1 Oct 2019 – 1 Apr 2020)
<input type="text"/>	<input type="text"/>

7\* How much colonies did you **net decrease** from combining your own colonies?

Summer (1 Apr 2019 – 1 Oct 2019)	Winter (1 Oct 2019 – 1 Apr 2020)
<input type="text"/>	<input type="text"/>

8*	What <b>percentage</b> of loss, over the last <b>winter</b> , would you consider <b>acceptable</b> ?	<input style="width: 100%;" type="text"/>	<i>Between 0-100%</i>															
9	Of your colonies that died during <b>winter</b> (between October 1, 2019 and April 1, 2020), what <b>percentage</b> experienced the following symptoms: <i>Few dead workers on the bottom board and around the hive, AND rapid loss of adult worker force, but presence of brood and laying queen, AND delayed invasion of hive pests/robbing</i>	<input style="width: 100%;" type="text"/>	<i>Between 0-100%</i>															
10	In your opinion, what factors were the most important <b>cause(s) of colony death</b> in your operation in <b>Summer</b> (between April 1, 2019 and October 1, 2019)? <i>(select all that apply)</i>																	
	<table style="width: 100%; border: none;"> <tr> <td><input type="checkbox"/> I did not experience summer loss</td> <td><input type="checkbox"/> Natural disaster (e.g. hurricane, flood)</td> <td><input type="checkbox"/> Pesticides and treatments</td> </tr> <tr> <td><input type="checkbox"/> Adverse weather (e.g. drought)</td> <td><input type="checkbox"/> Nutritional stress (pollen deprivation)</td> <td><input type="checkbox"/> Predators (e.g. bears)</td> </tr> <tr> <td><input type="checkbox"/> Brood diseases (e.g. EFB, AFB)</td> <td><input type="checkbox"/> Starvation (honey/nectar/sugar water)</td> <td><input type="checkbox"/> Scavenger Pests (e.g. Small Hive Beetle, Wax moth)</td> </tr> <tr> <td><input type="checkbox"/> Queen issues</td> <td><input type="checkbox"/> Equipment failure (e.g. moisture, ventilation)</td> <td><input type="checkbox"/> Varroa mites and associated viruses</td> </tr> <tr> <td colspan="3"> <input type="checkbox"/> I don't know      <input type="checkbox"/> Other, please specify: <input style="width: 50%;" type="text"/> </td> </tr> </table>			<input type="checkbox"/> I did not experience summer loss	<input type="checkbox"/> Natural disaster (e.g. hurricane, flood)	<input type="checkbox"/> Pesticides and treatments	<input type="checkbox"/> Adverse weather (e.g. drought)	<input type="checkbox"/> Nutritional stress (pollen deprivation)	<input type="checkbox"/> Predators (e.g. bears)	<input type="checkbox"/> Brood diseases (e.g. EFB, AFB)	<input type="checkbox"/> Starvation (honey/nectar/sugar water)	<input type="checkbox"/> Scavenger Pests (e.g. Small Hive Beetle, Wax moth)	<input type="checkbox"/> Queen issues	<input type="checkbox"/> Equipment failure (e.g. moisture, ventilation)	<input type="checkbox"/> Varroa mites and associated viruses	<input type="checkbox"/> I don't know <input type="checkbox"/> Other, please specify: <input style="width: 50%;" type="text"/>		
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11	In your opinion, what factors were the most important <b>cause(s) of colony death</b> in your operation in <b>Winter</b> (between October 1, 2019 and April 1, 2020)? <i>(select all that apply)</i>																	
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**Between April 1, 2019 and April 1, 2020...**

12	Please provide the zip code(s) of your <b>primary apiary/base of operation</b> . <i>(You can provide more than one if you have multiple bases of operation)</i>	<input style="width: 100%;" type="text"/>										
13	At the time of 2020 bloom, what <b>percentage</b> of your operation's colonies were used to <b>pollinate California almonds</b> ?	<input style="width: 100%;" type="text"/> <input type="checkbox"/> None <i>Between 0-100%</i>										
14*	Did you <b>move</b> any of your colonies <b>between states</b> ? <i>Do not include colonies you obtained from out of state before your installed them.</i>											
	<input type="radio"/> Yes (skip Q 16-17) <input type="radio"/> No (skip Q 15)											
15	Approximately what <b>percentage</b> of your operation moved <b>across state lines</b> at least once between April 1, 2019 and April 1, 2020?											
	<input style="width: 100%;" type="text"/> <i>Between 0-100%</i>											
16	What is the <b>average size</b> of your bee yards? <i>(On average how many colonies share the same location. Do not include mating yards or pollination drops.)</i>	17 In how <b>many</b> different bee yards did you keep your bees? <i>(Do not include mating yards or pollination drops.)</i>										
	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>										
18	Please enter the estimated <b>number of colonies</b> you had on the first of each month in each state/territory.											
State	1 Apr '19	1 May '19	1 Jun '19	1 July '19	1 Aug '19	1 Sept '19	1 Oct '19	1 Nov '19	1 Dec '19	1 Jan '20	1 Feb '20	1 Mar '20
-												
-												
-												
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-												

**Congratulations and thank you!** You have just completed **Part 1** of the survey. Your information will be used to generate **colony loss** information that is critical to establish baseline knowledge about the health of your honey bee colonies. **Part 2** focuses on how you managed your colonies last year. This information allows us to understand how your management **practices** are connected to the health of your colonies. Let's goooooo!!!!!!

## Between April 1, 2019 and April 1, 2020...

			If Yes, how often per month? (e.g. May 3x)											
			Apr '19	May '19	Jun '19	July '19	Aug '19	Sept '19	Oct '19	Nov '19	Dec '19	Jan '20	Feb '20	Mar '20
19*	... did you <b>inspect</b> your colonies?	<input type="radio"/> No <input type="radio"/> Yes												
20*	... did you monitor VARROA mites?	<input type="radio"/> No <input type="radio"/> Yes												
21*	... did you monitor NOSEMA levels?	<input type="radio"/> No <input type="radio"/> Yes												
22	Which of the following <b>techniques</b> did you use to monitor VARROA mites? (select all that apply)		23 Which of the following <b>techniques</b> did you use to monitor NOSEMA levels? (select all that apply)											
<input type="checkbox"/> Visual inspection of adult bees <input type="checkbox"/> Visual inspection of brood (uncapping) <input type="checkbox"/> Mite drop (sticky boards or other collection tray below the hive) <input type="checkbox"/> Powdered sugar roll <input type="checkbox"/> Ether roll <input type="checkbox"/> Alcohol wash <input type="checkbox"/> Samples collected by a BIP Tech Transfer Team <input type="checkbox"/> Samples collected for another monitoring effort (e.g.: APHIS NHBS, Sentinel Apiary) (Lab Testing) <input type="checkbox"/> I sent samples to another project (Lab Testing) <input type="checkbox"/> I did not monitor Varroa mites <input type="checkbox"/> Other, please specify:			<input type="checkbox"/> I looked for Nosema symptoms in and around the hive <input type="checkbox"/> I took samples and examined spores loads using a scope on my own <input type="checkbox"/> Samples collected by a BIP Tech Transfer Team (Lab testing) <input type="checkbox"/> Samples collected for another BIP monitoring effort (e.g.: APHIS NHBS, Sentinel Apiary) (Lab testing) <input type="checkbox"/> I sent samples to another project (lab testing) <input type="checkbox"/> I did not monitor Nosema <input type="checkbox"/> Other, please specify:											

## Between April 1, 2019 and April 1, 2020...

24*	Did you use a <b>treatment</b> to try to control...		
	... VARROA mites in your colonies?	<input type="radio"/> Yes <input type="radio"/> No	
	... NOSEMA in your colonies?	<input type="radio"/> Yes <input type="radio"/> No	
	... other pests/diseases in your colonies?	<input type="radio"/> Yes <input type="radio"/> No	

Note: a "treatment" is the application of a biological, organic or synthetic chemical to control the pest.

For the purpose of this survey, "pest" includes any pest/pathogen/parasite/general enemy of the honey bee.

25*	... which, if any, of the following did you apply to any of your colonies? (select all that apply)		
<input type="checkbox"/> None of the following			
<input type="checkbox"/> Amitraz-based product (e.g. Apivar)			
<input type="checkbox"/> Formic Acid (e.g. MiteAway QuickStrips)			
<input type="checkbox"/> Oxalic Acid			
<input type="checkbox"/> Thymol-based product (e.g. ApiLife VAR, ApiGuard)			
<input type="checkbox"/> Coumaphos-based product (e.g. CheckMite+ )			
<input type="checkbox"/> Fluvalinate-based product (e.g. Apistan)			
<input type="checkbox"/> Hop oil based product (e.g. HopGuard)			
<input type="checkbox"/> Menthol-based product (e.g. Mite-A-Thol)			
<input type="checkbox"/> Fumagillin (e.g. Fumidil B)			
<input type="checkbox"/> Terramycin			
<input type="checkbox"/> Tylan-based product (e.g. Tylosin)			
<input type="checkbox"/> Mineral oils			
<input type="checkbox"/> Essential oils			
<input type="checkbox"/> Other, please specify:			

## 26 Please specify how and when you used the products selected in Q25 during the last year (April 1, 2019 to April 1, 2020):

Examples of a "round or application" initiated on a certain month (even if the round has not been completed the same month):

- You treated your colonies with oxalic acid (OA) in April = **1 round/application in April**

- You treated half your colonies with OA on 2 April and the second half on 3 April = **(still) 1 round/application in April**

- You treated your colonies with OA on 2 April and again on 9 April = **2 rounds/application in April**

- You added 2 Apivar strips to your hives in May = **1 round/application in May**

Product used (specify brand or homemade recipe)	Target Pest (eg. Varroa, SHB, ...)	Reason treatment applied <sup>(1)</sup>	% of colonies treated [1-100%]	Which months and how many rounds/applications of the treatment did you <b>INITIATE</b> per month? (e.g. May 3x)											
				Apr '19	May '19	Jun '19	July '19	Aug '19	Sept '19	Oct '19	Nov '19	Dec '19	Jan '20	Feb '20	Mar '20
-															
-															
-															
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<sup>(1)</sup> Reason treatment applied: **A:** as part of my regular maintenance/calendar treatment; **B:** in response to personal monitoring; **C:** in response to an third party inspection; **D:** in response to Lab Test results; **E:** in response to pest outbreaks in the local area (from hearsay); **F:** Don't know

**Between April 1, 2019 and April 1, 2020...**27\* ... did you use any of the following **practices/ equipment** to try to control VARROA mites? *(select all that apply)*☐ I did **not** use any practices or equipmentWhat % of your colonies?  
(Between 0-100%)If so, how **often** per month? *(e.g. May 3x)*

Apr '19	May '19	Jun '19	July '19	Aug '19	Sept '19	Oct '19	Nov '19	Dec '19	Jan '20	Feb '20	Mar '20

☐ Drone Brood Removal☐ Screened bottom board☐ Small cell size comb☐ Powdered sugar☐ I made splits☐ I created a brood break☐ Other, please specify:28\* ... did you use any of the following **techniques** to try to control SMALL HIVE BEETLES in your colonies? *(select all that apply)*☐ I did **not** use any technique to control SHBWhat % of your colonies?  
(Between 0-100%)If so, how **often** per month ? *(e.g. May 3x)*

Apr '19	May '19	Jun '19	July '19	Aug '19	Sept '19	Oct '19	Nov '19	Dec '19	Jan '20	Feb '20	Mar '20

☐ In-hive traps (Q39-40)☐ Bottom board trap (Q39-40)☐ Soil drench☐ Coumaphos strips☐ Nematodes☐ Other, please specify:29 If you used a trap, what **kind** of trap?☐ Chemical☐ Enclosure☐ Drown☐ Dusting pads/cloth☐ Diatomaceous earth☐ Other, please specify:30 If you used a trap, how did you **bait** the trap?☐ No bait☐ Apple cider vinegar☐ Mineral oil☐ Cooking oil / Vegetable oil☐ Honey and/or pollen patty☐ Other, please specify the BAIT (not the poison):

Did we say thank you yet? Thank you

## Between April 1, 2019 and April 1, 2020...

31\* ... did you **feed** any of your colonies? *Includes feed additives, supplements and feed stimulants* ☐ Yes ☐ No (skip Q32-33)

32\* ... which, if any, of the following did you apply to any of your colonies? *(select all that apply)*

<input type="checkbox"/> None of the following	<input type="checkbox"/> High Fructose Corn Syrup (HFCS)	<input type="checkbox"/> Protein supplement (e.g. MegaBee, BeePro, UltraBee)
<input type="checkbox"/> Honey (capped frames)	<input type="checkbox"/> Sugar syrup (e.g. Sugar water, Pro-Sweet, liquid feed)	<input type="checkbox"/> Winter patties (e.g. ProWinter)
<input type="checkbox"/> Honey (excess extracted)	<input type="checkbox"/> Essential oils in sugar feed (e.g. VitaFeed Green/Gold, Honey-B-Healthy, Hive Alive, ProHealth)	<input type="checkbox"/> Grease patties (e.g. Crisco, vegetable oil)
<input type="checkbox"/> Dry sugar	<input type="checkbox"/> Probiotics (e.g. superDFM, proDFM)	<input type="checkbox"/> Essential oils patties (e.g. LaFore)
<input type="checkbox"/> Candy (e.g. Fondant)		
<input type="checkbox"/> Other, please specify:		

33 Please specify how and when you used the products selected in Q32 during the last year (April 1, 2019 to April 1, 2020):

Product used <i>(specify brand or homemade recipe)</i>	Concentration <i>(if mixed) (e.g. 2:1 sugar: water)</i>	Was this amount <i>(1)</i>	% of colonies fed <i>[1-100%]</i>	Which months and how often did you apply the product per month? <i>(e.g. May 3x)</i>											
				Apr '19	May '19	Jun '19	July '19	Aug '19	Sept '19	Oct '19	Nov '19	Dec '19	Jan '20	Feb '20	Mar '20
-															
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<sup>(1)</sup> **Was this amount:** **A:** on par with what I usually feed this month of the year; **B:** above what I usually feed this month of the year; **C:** below what I usually feed this month of the year; **D:** not applicable (first year beekeepers); **E:** Don't know.

**You're doing great!! Many thanks for all the information provided so far!** In the rest of this survey we will cover: queen management, equipment management, honey production, pollination, wintering prep and beekeeper activity.

## Between April 1, 2019 and April 1, 2020...

34\* What type or **race of queens** do you use in your operation?

<input type="checkbox"/> New World Carniolan	<input type="checkbox"/> Russian	<input type="checkbox"/> German black
<input type="checkbox"/> Caucasian	<input type="checkbox"/> Varroa Sensitive Hygienic (VSH)	<input type="checkbox"/> Local selected
<input type="checkbox"/> Italian	<input type="checkbox"/> Minnesota Hygienic	<input type="checkbox"/> Africanized
<input type="checkbox"/> Buckfast		<input type="checkbox"/> I don't know
<input type="checkbox"/> Other, please specify:		

35 **How old** on average were the **queens** that headed a majority (>50%) of your colonies on 1 October 2019? *(choose one)*

☐ Less than 6 months ☐ 6 months – 1 year ☐ 1 – 2 years ☐ Older than 2 years ☐ I don't know

## Between April 1, 2019 and April 1, 2020...

36\* ... did you start or obtain any **new colonies**? *(include swarms, nucs, packages, splits, received colonies, ...)* ☐ Yes ☐ No (skip Q37-39)

37 **How did you start** or obtain new colonies? *(select all that apply)*

<input type="checkbox"/> Swarms	<input type="checkbox"/> Splits	<input type="checkbox"/> Packages	<input type="checkbox"/> Nucs	<input type="checkbox"/> Full colonies
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38 If you made **splits** last year, what kind of queen did you introduce? *(select all that apply)*

<input type="checkbox"/> Left the old queen	<input type="checkbox"/> Introduced mated queens (from a commercial producer)
<input type="checkbox"/> Introduced mated queens (from another non-commercial beekeeper)	<input type="checkbox"/> Introduced queen cell (from a commercial producer)
<input type="checkbox"/> Introduced queen cell (from another non-commercial beekeeper)	<input type="checkbox"/> I reared them myself
<input type="checkbox"/> Walk away split	<input type="checkbox"/> Other, please specify:

39 To start new colonies, what **equipment** did you use? *(select all that apply)*

<input type="checkbox"/> New equipment	<input type="checkbox"/> Old equipment from my operation	<input type="checkbox"/> Old equipment from other beekeeper(s)
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## Between April 1, 2019 and April 1, 2020...

40*	... did you <b>kill and/or replace</b> the queen of any of your previously established colonies?	<input type="radio"/> Yes <input type="radio"/> No (skip Q41-44)
41	Generally, <b>how often</b> do you replace the queens in your established colonies? (choose one)	
	<input type="radio"/> Never (let them re-queen on their own) <input type="radio"/> Every year <input type="radio"/> Only to correct behavior / disease susceptibility <input type="radio"/> Twice a year <input type="radio"/> Every 2 to 3 years <input type="radio"/> More than twice a year	
42	In what percentage of your colonies did you kill and/or replace queens over the last year?	<input type="text"/> <input type="checkbox"/> None <i>Between 0-100%</i>
43	How did you re-queen these colonies? (select all that apply)	
	<input type="checkbox"/> Introduced mated queens <input type="checkbox"/> Introduced virgin queens <input type="checkbox"/> Introduced queen cells <input type="checkbox"/> Introduced queen right nucs <input type="checkbox"/> Permitted colony or split to rear their own queens (natural re-queening) <input type="checkbox"/> Other, please specify: <input type="text"/>	
44	If <b>introduced</b> , where did you get the queens from? (select all that apply)	
	<input type="checkbox"/> from a commercial queen producer(s) <input type="checkbox"/> from a beekeeper (non-commercial) <input type="checkbox"/> I reared them myself <input type="checkbox"/> Other, please specify: <input type="text"/>	

## Between April 1, 2019 and April 1, 2020 ...

45	What <b>hive type</b> did you use to maintain your colonies? (select all that apply)	
	<input type="checkbox"/> Standard Langstroth 10 frame hive bodies (even if use less than 10 frames in it) <input type="checkbox"/> Top bar hives <input type="checkbox"/> Standard Langstroth 8 frame hive bodies (even if use less than 8 frames in it) <input type="checkbox"/> Warre <input type="checkbox"/> Home-made (NOT Langstroth dimensions) <input type="checkbox"/> Nucs boxes <input type="checkbox"/> Other, please specify: <input type="text"/>	
46	When adding new frames, what type of <b>foundation</b> did you use? (select all that apply)	
	<input type="checkbox"/> Foundation-less <input type="checkbox"/> Wax foundation <input type="checkbox"/> Fully drawn artificial comb <input type="checkbox"/> Plastic foundation <input type="checkbox"/> Other, please specify: <input type="text"/>	
47	On average, how old is the brood <b>comb</b> in your colonies? (choose one)	48 On average, how many <b>brood nest frames</b> did you replace from each colony? (choose one)
	<input type="radio"/> Less than 1 year old <input type="radio"/> 1 – 2 years <input type="radio"/> 2 – 3 years <input type="radio"/> 3 – 4 years <input type="radio"/> 4 – 5 years <input type="radio"/> More than 5 years old <input type="radio"/> I don't know	<input type="radio"/> I did not replace any frames <input type="radio"/> I only replaced broken frames <input type="radio"/> ~10% (e.g. 1 frame per brood box) <input type="radio"/> ~20% (e.g. 2 frames per brood box) <input type="radio"/> 25 – 50% (e.g. between 3 to 5 frames per brood box) <input type="radio"/> More than 50% of frames (>5 frames per brood box) <input type="radio"/> I don't know
49	Before <b>re-using</b> it, what did you do to the <b>brood comb</b> that you had previously taken out of production?	
	<input type="checkbox"/> I did not reuse any old brood comb <input type="checkbox"/> I culled any particularly old or bad comb and replaced it <input type="checkbox"/> I did not treat the comb in any particular way <input type="checkbox"/> I fumigated the comb with acetic acid <input type="checkbox"/> I froze the comb <input type="checkbox"/> I stored the comb with paradichlorobenzene crystals (moth crystals) <input type="checkbox"/> I irradiated the comb <input type="checkbox"/> Other, please specify: <input type="text"/>	
50	Generally, when you found a <b>dead colony</b> in your operation between April 1, 2019 and October 1, 2020 ( <b>during the active season</b> ), you would: (choose one)	
	Note: Excluding colonies killed by AFB <input type="radio"/> Immediately reused the equipment by splitting frames of bees/brood from other strong colonies into it <input type="radio"/> Immediately reused the equipment by adding it to a living colony <input type="radio"/> Packed up the dead out's equipment and stored it for re-use at a later date <input type="radio"/> A mixture of both, I immediately reused some and packed up others <input type="radio"/> I did not find dead colonies <input type="radio"/> Other, please specify: <input type="text"/>	

51 Which of the following (other than feeding), did you use to **prepare for last winter** (2019-2020)? (*select all that apply*)

<input type="checkbox"/> I did not prepare my colonies for winter	<input type="checkbox"/> I wrapped my colonies with insulation
<input type="checkbox"/> I created or engaged an upper entrance	<input type="checkbox"/> I wrapped my colonies with tar paper or wintering sleeve
<input type="checkbox"/> I used an entrance reducer	<input type="checkbox"/> I placed extra insulation on top of the colonies
<input type="checkbox"/> I equalized colony strength	<input type="checkbox"/> I used mouse guards
<input type="checkbox"/> I moved my colonies to a warmer region	<input type="checkbox"/> I moved my colonies to inside wintering buildings
<input type="checkbox"/> Other (but NOT feeding), please specify: <input type="text"/>	

52 What **hive type** did you use to **overwinter** the majority of your colonies? (*choose one*)

<input type="radio"/> Standard Langstroth 10 frame hive bodies (even if use less than 10 frames in it)	<input type="radio"/> Top bar hives
<input type="radio"/> Standard Langstroth 8 frame hive bodies (even if use less than 8 frames in it)	<input type="radio"/> Warre
<input type="radio"/> Home-made (NOT Langstroth dimensions)	<input type="radio"/> Nuc boxes
<input type="radio"/> Other, please specify: <input type="text"/>	

53 If Langstroth, in how many **hive bodies** did the majority of your bees **overwinter**?  
*Please include number of hive bodies of each size.*

I used:  deeps AND  mediums AND  shallows

54 **How strong** was your average colony on October 1, 2019 (**pre-wintering**)? Estimate the “frames of bees”.  job  
Note: 1 “frame of bees” = 1 Langstroth deep frame fully occupied by bees on both sides. Must be between 0 and 50.

**Between April 1, 2019 and April 1, 2020 ...**

55 What best describes the **environment** around the majority of your apiary(ies)? (Consider ~3 miles radius)  
(*select all that apply and specify the % in total area; the total should add up to 100%: e.g. Nat. 50%, Agri. 50%, Urb. 0%, Sub. 0%*)

☐ Natural  % ☐ Agricultural  % ☐ Urban  % ☐ Suburban  %

56 Were there any **crops** in proximity of the majority (>50%) of your colonies? (*Consider CROPS in flying range from your apiary(ies)*)

☐ I don't know ☐ No crop ☐ Urban environment

☐ Please specify the **crops**:

57\* ... did you harvest or remove **honey** from your colonies? ☐ Yes ☐ Not last year ☐ I **never** attempt to (*skip Q58-60*)

58 If yes, **how much** honey did your average colony produce?  in lbs per colony

59 If yes, during which **months** did you harvest or remove honey?

60 In your opinion, what was/were the main nectar source(s) for your honey? (*write up to 4 sources*)

**Between April 1, 2019 and April 1, 2020 ...**

61 ... did you use any of your colonies for **pollination** of **agricultural** crops? ☐ Yes ☐ No (*skip Q62-63*)

62 If yes, did you derive an **income** by renting your colonies for pollination? ☐ Yes ☐ No ☐ Prefer not to say

63 If yes, which crops were you paid to pollinate and how many colonies did you use for each?

Crop	# of colonies rented	Crop	# of colonies rented
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Thank you for your ideas so far!

We would appreciate **10 more minutes** of your time to fill out these **socio-economic** questions.

The better we understand beekeepers like you, through your goals and practices, the better we can target outreach and information to address barriers that beekeepers are facing and thus help improve beekeeping across the spectrum, from commercial to backyard.

## Between April 1, 2019 and April 1, 2020 ...

64	How much <b>total time</b> over the course of the entire year would you estimate that you and/or others spend caring for all of your colonies?		<input type="text"/>	<input type="radio"/> I don't know <input type="radio"/> I prefer not to say
			<i>in total hours</i>	
65	How many people (including yourself) worked your colonies over the last year (between April 1, 2019 and April 1, 2020)?		<input type="text"/>	<input type="text"/>
			Full-time employees	Part-time employees
66	How much (in US \$) would you value your average colony if you had to sell it at the following times of year?			
	October	<input type="text"/> in \$	February	<input type="text"/> in \$
			April	<input type="text"/> in \$
67	How much money over the last year did you spend on <b>feed</b> (protein and/or carbohydrates)?		<input type="text"/>	in \$
68	How much money over the last year did you spend on <b>equipment</b> ?		<input type="text"/>	in \$
69	How much money over the last year did you spend on <b>treatments/controls</b> ?		<input type="text"/>	in \$
70	... why did you keep bees? <i>(select all that apply)</i> <div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> For pollination  <input type="checkbox"/> For queen production  <input type="checkbox"/> For package production  <input type="checkbox"/> For nuc production  <input type="checkbox"/> Other, please specify: <input type="text"/> </div> <div> <input type="checkbox"/> For honey/pollen/wax production for sale  <input type="checkbox"/> For honey/pollen/wax production for personal use only  <input type="checkbox"/> For enjoyment/hobby  <input type="checkbox"/> For teaching/education           </div> </div>			
71	... were you <b>expecting</b> to derive an income from your beekeeping activities? <i>(choose one)</i> <input type="radio"/> No, beekeeping is a hobby <input type="radio"/> No, but I occasionally derive an unpredictable income (occasional honey, wax, package...) <input type="radio"/> Yes, I was expecting my beekeeping activities to supplement my income <input type="radio"/> Yes, I was expecting my beekeeping activities to provide me with the majority or all of my income			
72	... what percentage of your annual income <b>was</b> derived from your beekeeping activities? <i>(choose one)</i> <div style="display: flex; justify-content: space-between;"> <div> <input type="radio"/> None  <input type="radio"/> Between 5 to 50%           </div> <div> <input type="radio"/> I lost money  <input type="radio"/> Between 51 to 90%           </div> <div> <input type="radio"/> Less than 5%  <input type="radio"/> Over 90%           </div> <div> <input type="radio"/> I don't know  <input type="radio"/> I prefer not to say           </div> </div>			
73	Please indicate the range that best represents the total yearly income, before taxes, of all immediate family living in your household. <i>(Select one category)</i> <div style="display: flex; justify-content: space-between;"> <div> <input type="radio"/> under \$25,000  <input type="radio"/> \$75,000-\$99,999  <input type="radio"/> over \$250,000           </div> <div> <input type="radio"/> \$25,000-\$34,999  <input type="radio"/> \$100,000-\$149,999  <input type="radio"/> I don't know           </div> <div> <input type="radio"/> \$35,000-\$49,999  <input type="radio"/> \$150,000-\$199,999  <input type="radio"/> I prefer not to say           </div> <div> <input type="radio"/> \$50,000-\$74,999  <input type="radio"/> \$200,000-\$250,000           </div> </div>			
74	Please indicate your gender: <input type="text"/>			
75	Please indicate your age: <i>(Select one category)</i> <div style="display: flex; justify-content: space-between;"> <div> <input type="radio"/> 18-24 years old  <input type="radio"/> 55-64 years old           </div> <div> <input type="radio"/> 25-34 years old  <input type="radio"/> 65-74 years old           </div> <div> <input type="radio"/> 35-44 years old  <input type="radio"/> 75-84 years old           </div> <div> <input type="radio"/> 45-54 years old  <input type="radio"/> 85 years old or older           </div> </div>			
76	Approximately how many <b>years</b> have <b>you</b> been keeping bees?		<input type="text"/>	in years (number)
77	On average, how many <b>years</b> have <b>your staff</b> been keeping bees? <i>(if applicable)</i>		<input type="text"/>	in years/person
78	How did you first learn beekeeping? <i>(select all that apply)</i> <input type="checkbox"/> From a mentor beekeeper and/or friend or family <input type="checkbox"/> On my own (books, internet...) <input type="checkbox"/> From a beekeeping class (bee group/club/master class...) <input type="checkbox"/> Other, please specify: <input type="text"/>		79 Are you a member of a beekeeping organization? <i>(select all that apply)</i> <input type="checkbox"/> Local beekeeping group <input type="checkbox"/> State/regional beekeeping organization <input type="checkbox"/> National beekeeping organization <input type="checkbox"/> No, I'm not a member of any beekeeping organization <input type="checkbox"/> I prefer not to say	
80	What are your primary sources of bee <b>health information</b> ? <i>(select all that apply)</i> <div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> Other beekeepers (mentor, friends, family, neighbors...)  <input type="checkbox"/> Beekeeping class  <input type="checkbox"/> Beekeeping club / association / organization meetings  <input type="checkbox"/> Online (blogs, videos, media...)  <input type="checkbox"/> Books  <input type="checkbox"/> Bee journals or magazines  <input type="checkbox"/> Scientific publications           </div> <div> <input type="checkbox"/> Beekeeping association newsletters  <input type="checkbox"/> Beekeeping conventions  <input type="checkbox"/> Suppliers (of beekeeping equipment)  <input type="checkbox"/> Apiary inspector (or any state officials)  <input type="checkbox"/> University Extension / Outreach  <input type="checkbox"/> Bee Informed Partnership           </div> </div> <input type="checkbox"/> Other, please specify: <input type="text"/>			



81	When choosing treatment or feeding <b>strategies</b> for your colonies, would you say that you: <i>(choose one)</i>	
	<input type="radio"/> Are only willing to use “bee-produced” products in the hive <input type="radio"/> Are only willing to use “natural” or “organic” products in the hive <input type="radio"/> Prefer to use natural or organic products in the hive but will use synthetic products if needed <input type="radio"/> Will use synthetic products if needed <input type="radio"/> Have no preference <input type="radio"/> Other, please specify: <input type="text"/>	
82	Do you believe that you know what <b>Best Management Practices</b> are? <input type="radio"/> Yes <input type="radio"/> No <i>(skip Q83-84)</i>	
83	If so, do you believe that you are using <b>Best Management Practices</b> in your colonies? <i>(choose one)</i>	
	<input type="radio"/> Yes, always <input type="radio"/> No <input type="radio"/> Sometimes <input type="radio"/> I don't know <input type="radio"/> In some hives and not others <input type="radio"/> I don't know what best practices are <input type="radio"/> With some aspects of beekeeping and not others <input type="radio"/> I don't think best management practices work	
84	If not always, what is stopping you from adopting Best Management Practices? <i>(select all that apply)</i>	
	<input type="checkbox"/> Not enough information <input type="checkbox"/> Too costly <input type="checkbox"/> Too labor-intensive <input type="checkbox"/> Other, please specify: <input type="text"/>	

**You made it! You're our hero!**

**Ok, let's wrap things up...**

85	Did you take part in any of the following monitoring efforts? <i>(select all that apply)</i>	
	<input type="checkbox"/> APHIS National Honey Bee Survey <sup>(1)</sup> ----->	NHBS sampling code <input type="text"/>
	<input type="checkbox"/> Bee Informed Tech Transfer Teams <sup>(1)</sup> ----->	BIP Tech Team participant code <input type="text"/>
	<input type="checkbox"/> Bee Informed Sentinel Apiary <sup>(1)</sup> ----->	Sentinel Apiary participant code <input type="text"/>
	<input type="checkbox"/> None of the above <input type="checkbox"/> I prefer not to say <input type="checkbox"/> I'm unsure	
	<sup>(1)</sup> If you participated in any of the BIP sampling programs, or the APHIS NHBS survey, would you be willing to provide your participant code (above) and/or contact information (here below) so we can link your survey responses with your bee health measures?	
	<input type="text"/>	
86	We may wish to contact you if we have questions about your responses. Is this ok? <input type="radio"/> Yes <input type="radio"/> No	
87	Would you be willing to participate in future beekeeping surveys? <input type="radio"/> Yes <input type="radio"/> No	
88	If you agree to be contacted, please enter your email address here: <i>The Bee Informed Partnership does not share any email addresses</i>	
	<input type="text"/>	
89	Did you complete this survey on behalf of someone else? <input type="radio"/> Yes <input type="radio"/> No, for myself	
90	Is this the first year you are participating in our survey? <input type="radio"/> Yes <input type="radio"/> No	
91	Where did you hear about this survey? <i>(select all that apply)</i>	
	<input type="checkbox"/> Organization newsletter <input type="checkbox"/> Bee meeting <input type="checkbox"/> Friend or neighbor <input type="checkbox"/> State apiarist <input type="checkbox"/> Website <input type="checkbox"/> BIP (we emailed you) <input type="checkbox"/> Paper survey <input type="checkbox"/> Other, please specify: <input type="text"/>	
92	Any comments?	
	<input type="text"/>	

# Thank You!

Thank you for your time in answering our Colony Loss and Management Survey!

The Bee Informed Partnership is a non-profit organization that endeavors to decrease managed honey bee colonies losses.

By answering those questions on colony loss and management, you are helping us describe a realistic picture of the losses in the US and to better understand factors that contribute to reducing colony losses.

Results will be posted at the [beeinformed.org](http://beeinformed.org) web site as they become available.

For example, check out last year's information: <https://research.beeinformed.org/survey/>

