



Thank you for participating in the **2020-2021 Bee Informed Partnership National Colony Loss and Management Survey**

Backyard beekeeper version (50 or fewer colonies on 1 October 2020)

Your participation in this research is confidential. All your answers will be stored in a secure, password protected database application that uses SSL encryption. No personally identifiable information will be disclosed in any publication or presentation resulting from this research. Mention of a beekeeping product/practice in this survey does not constitute an official endorsement or approval by the Bee Informed Partnership. Please only complete this survey if you are 18 years or older.

Please enter your answers electronically, on:
<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! Without answers to them, your data will have limited value.

We expect the survey to take about 30-45 minutes of your time. We really appreciate the time you put into this to make your responses as accurate as possible. You will want to refer to your beekeeping notes when going through this survey, and it may be helpful to review the Survey prior to starting.

Loss Survey

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 newly 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. ‘Splits’ are increases made by dividing your own colonies.

1* How many colonies did you own on 1 October 2020? (Please select one of the following.)					
<input checked="" type="radio"/> 50 or fewer colonies		<input type="radio"/> 51 or more colonies			
2* In what states and territories were your colonies stationed between 1 April 2020 and 1 April 2021? (Please choose ALL options relevant to you, including areas visited for pollination services and indoor colony storage. Do not include areas passed through when transporting your colonies.)					
<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="checkbox"/> District of Columbia	<input type="checkbox"/> Kentucky	<input type="checkbox"/> Nebraska	<input type="checkbox"/> Oregon	<input type="text"/>	
<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		

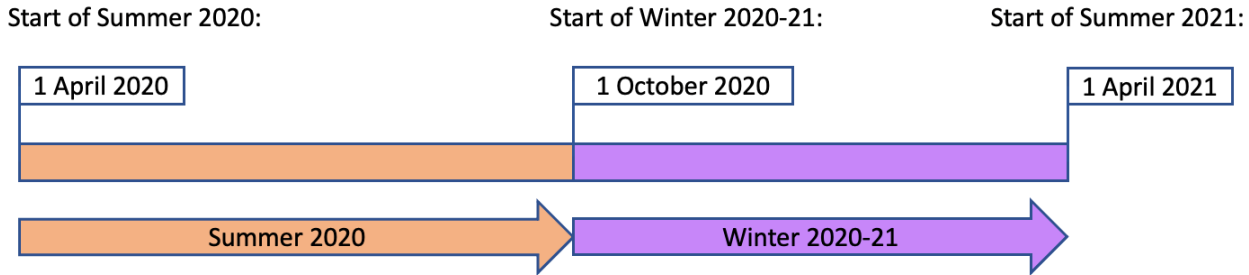
Time Period Covered by this Survey:

The survey covers the period between 1 April 2020 and 1 April 2021.

Summer 2020 is defined as the period from **1 April 2020** to the **morning of 1 October 2020**;

Winter 2020-21 is defined as the period from **1 October 2020** to the **morning of 1 April 2021**.

Please refer to these definitions and the timeline below when completing the survey.



3*	<p>How many colonies did you own at each time?</p> <p>1 April 2020: <input type="text"/></p> <p>1 October 2020: <input type="text"/></p> <p>1 April 2021: <input type="text"/></p>	
4*	<p>How strong was your average colony at each time? Estimate the number of ‘frames of bees’.</p> <p><i>(One ‘frame of bees’ = One deep Langstroth frame fully occupied by bees on both sides).</i></p> <p>1 April 2020: <input type="text"/></p> <p>1 October 2020: <input type="text"/></p> <p>1 April 2021: <input type="text"/></p>	
5*	<p>How many colonies did you obtain from outside your operation during each period?</p> <p><i>(Please include both those that did AND did not successfully establish in your operation after your initial installation.)</i></p> <p>Summer 2020: <input type="text"/></p> <p>Winter 2020-21: <input type="text"/></p>	<p><i>Remember: ‘Summer 2020’ is defined as the period between 1 April 2020 and the morning of 1 October 2020. ‘Winter 2020-21’ is defined as the period between 1 October 2020 and the morning of 1 April 2021.</i></p>
6*	<p>How much net increase in colonies did you make from splitting your own colonies during each period?</p> <p><i>(Please include both those that did AND did not successfully establish. Also include packages, nucs, and splits that were eventually sold.)</i></p> <p>Summer 2020: <input type="text"/></p> <p>Winter 2020-21: <input type="text"/></p>	<p><i>Examples of net increase by splitting:</i></p> <p>1) You might break down an entire colony while making splits. If you break down 1 colony into 3 smaller colonies, this represents a net increase of 2 colonies.</p> <p>2) 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 net increase of 1 colony.</p>
7*	<p>How many colonies did you sell or give away during each period?</p> <p>Summer 2020: <input type="text"/></p> <p>Winter 2020-21: <input type="text"/></p>	<p><i>Remember: our definition of a colony includes full-sized colonies, as well as newly made splits/nucs and packages.</i></p>
8*	<p>How much was your net decrease in colonies due to intentionally combining your colonies?</p> <p>Summer 2020: <input type="text"/></p> <p>Winter 2020-21: <input type="text"/></p>	<p><i>Example of net decrease by combining: You might combine 2 weak colonies into one. This represents a net decrease of 1 colony.</i></p>

9* What **percentage of loss** over the last **winter (Winter 2020-21)** would you consider acceptable? *Between 0-100%*

10 What factors do you think were the most prominent **cause(s) of colony death** in your operation in **Summer 2020?** *(Select up to 3)*

I did not experience summer loss Natural disaster (e.g. hurricane, flood) Shipping stress (e.g. overheating, truck issues)
 Adverse weather (e.g. drought) Nutritional stress (pollen deprivation) Equipment failure (e.g. moisture, ventilation)
 Brood diseases (e.g. EFB, AFB) Starvation (honey/nectar/sugar water)
 Queen issues Non-apicultural pesticides Predators (e.g. bears)
 I don't know Apicultural treatments (e.g. formic acid, amitraz) Scavenger pests (e.g. small hive beetle, wax moth)
 Other, please specify: Varroa mites and associated viruses

11 What factors do you think were the most prominent **cause(s) of colony death** in your operation in **Winter 2020-21?** *(Select up to 3)*

I did not experience winter loss Natural disaster (e.g. hurricane, flood) Shipping stress (e.g. overheating, truck issues)
 Adverse weather (e.g. cold snap) Nutritional stress (pollen deprivation) Equipment failure (e.g. moisture, ventilation)
 Brood diseases (e.g. EFB, AFB) Starvation (honey/nectar/sugar water) Failure of environmental controls in sheds
 Queen issues Non-apicultural pesticides Predators (e.g. bears)
 I don't know Apicultural treatments (e.g. formic acid, amitraz) Scavenger pests (e.g. small hive beetle, wax moth)
 Other, please specify: Varroa mites and associated viruses

12 What was the ZIP code of your **primary apiary** during the survey period? *5-digit ZIP codes only*

13 If you keep bees in additional apiaries, in which ZIP code(s) are they located? *5-digit ZIP codes only*

14 In **how many** different bee yards did you keep bees?
(Do not include mating yards or pollination drops)

15 What was the **average size** of your bee yard(s)?
(In other words, how many colonies on average share the same location?)

16 At the start of each month, how many colonies did you own in each state/territory?

State	1 Jan 2020	1 Feb 2020	1 Mar 2020	1 Apr 2020	1 May 2020	1 Jun 2020	1 July 2020	1 Aug 2020	1 Sept 2020	1 Oct 2020	1 Nov 2020	1 Dec 2020	1 Jan 2021	1 Feb 2021	1 Mar 2021	1 Apr 2021
-																
-																
-																
-																
-																

17 Did the SARS-CoV-2 (COVID) pandemic, or pandemic-related restrictions, affect your beekeeping operation during the survey period?

No Yes If Yes, please describe how:

18	Did you take part in any of the following monitoring efforts ?	<i>Entering your participant code lets us link your responses to this survey with your bee health measures.</i>	
	APHIS National Honey Bee Disease Survey	<input type="radio"/> I don't know <input type="radio"/> No <input type="radio"/> Yes	NHBDS sampling code: <input type="text"/>
	Bee Informed Tech Transfer Teams	<input type="radio"/> I don't know <input type="radio"/> No <input type="radio"/> Yes	BIP Tech Team participant code: <input type="text"/>
	Bee Informed Sentinel Apiary Program	<input type="radio"/> I don't know <input type="radio"/> No <input type="radio"/> Yes	Sentinel Apiary participant code: <input type="text"/>
19	Please provide your email address		
	<i>This email is requested for administrative purposes and will never be disclosed. The Bee Informed Partnership does not share any email addresses.</i>		
	<input type="text"/>		
20	Would you be willing to be contacted regarding this survey's results and future surveys?	<input type="radio"/> Yes <input type="radio"/> No	
21	Would you like to receive additional updates from the Bee Informed Partnership and learn about its various programs?	<input type="radio"/> Yes <input type="radio"/> No	

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 honey bee colonies in the country.

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.

This year, we made a huge change to **Part 2**. We focused our questions on how you managed your queens and established new colonies. This means **Part 2** has fewer questions than ever before! Next year the survey will focus on a different topic.

Management Survey

This year's Management Survey focuses on practices related to **Queens and New Colonies**.

Please refer to Part 1 (the Loss Survey) for definitions and an explanation of the periods defined as **Summer 2020** and **Winter 2020-21**.

How you started new colonies

Note that a **'new queen'** is one raised in 2020. Also note that **'splits given a new queen'** includes giving the split a mated queen, a queen cell, and even the opportunity to raise a new queen by making a walk-away split.

22*	During the survey period, did you start or obtain any new colonies?		<input type="radio"/> No (Skip Q23-28)	<input type="radio"/> Yes
23	How did you start or obtain your new colonies during Summer 2020 ? (Select all that apply)			
	From within your operation:		From outside your operation:	
	<input type="checkbox"/> Splits given a new queen <i>(queen raised in 2020)</i>	<input type="checkbox"/> Swarms	<input type="checkbox"/> Packages	<input type="checkbox"/> Nucs
	<input type="checkbox"/> Full colonies			
24	What percentage of new colonies started or obtained during Summer 2020 by each method died by 1 October 2020 ?			
	Splits given a new queen	Swarms	Packages	Nucs
	<input type="text"/> 0-100%	<input type="text"/> 0-100%	<input type="text"/> 0-100%	<input type="text"/> 0-100%
	<input type="radio"/> I don't know	<input type="radio"/> I don't know	<input type="radio"/> I don't know	<input type="radio"/> I don't know
	<input type="radio"/> Not applicable	<input type="radio"/> Not applicable	<input type="radio"/> Not applicable	<input type="radio"/> Not applicable
25	What percentage of new colonies started or obtained during Summer 2020 by each method died by the 1 April 2021 ? <i>(Your percentages should be the same or higher than those listed for Q24, depending on your Winter 2020-21 mortality.)</i>			
	Splits given a new queen	Swarms	Packages	Nucs
	<input type="text"/> 0-100%	<input type="text"/> 0-100%	<input type="text"/> 0-100%	<input type="text"/> 0-100%
	<input type="radio"/> I don't know	<input type="radio"/> I don't know	<input type="radio"/> I don't know	<input type="radio"/> I don't know
	<input type="radio"/> Not applicable	<input type="radio"/> Not applicable	<input type="radio"/> Not applicable	<input type="radio"/> Not applicable
26*	Did you make one or more split last year, between 1 January 2020 and 1 April 2020?			
	<input type="radio"/> No	<input type="radio"/> Yes	If Yes, on what date did you start splitting in 2020?	<input type="text"/>
27*	Did you make one or more split this year, between 1 January 2021 and 1 April 2021?			
	<input type="radio"/> No	<input type="radio"/> Yes	If Yes, on what date did you start splitting in 2021?	<input type="text"/>
28	During Summer 2020 , when and where did you make increase through splitting ?			
	How much net increase did you make in each period, and what was the average strength of the splits when they were established?			
	<i>One 'frame of brood' = one deep Langstroth frame mostly covered with brood of any stage on both sides; one 'frame of bees' = one deep Langstroth frame fully occupied by bees on both sides.</i>			
	Start date	End date	State	Net increase
	Average brood strength (# frames of brood)	Average bee strength (# frames of bees)		
	<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"/>	<input type="text"/>		<input type="text"/>

How you managed queens

Note that a 'new queen' is one raised in 2020.

29*	Did you provide any new queens to your colonies during Summer 2020 ? <input type="radio"/> No (Skip Q30-32) <input type="radio"/> Yes	
<i>(Include queens provided both during splitting and requeening)</i>		
30	How many of each type of queen did you provide to your colonies during Summer 2020 ?	
Type	Number	
New mated queens	<input type="text"/>	
Queen cells	<input type="text"/>	
Walk-away splits, or killed queen to allow colony to raise emergency queen	<input type="text"/>	
Other, please specify:	<input type="text"/>	<input type="text"/>
31	If you installed new mated queens or queen cells, where did you obtain them from? <i>(Select all that apply)</i>	
Type	Obtained from:	State(s) of origin
New mated queens	<input type="checkbox"/> commercial queen producer(s)	<input type="text"/>
	<input type="checkbox"/> beekeeper (non-commercial)	<input type="text"/>
	<input type="checkbox"/> reared them myself	<input type="text"/>
	<input type="checkbox"/> other, please specify: <input type="text"/>	<input type="text"/>
Queen cells	<input type="checkbox"/> commercial queen producer(s)	<input type="text"/>
	<input type="checkbox"/> beekeeper (non-commercial)	<input type="text"/>
	<input type="checkbox"/> reared them myself	<input type="text"/>
	<input type="checkbox"/> other, please specify: <input type="text"/>	<input type="text"/>
32	Of the queens you provided to colonies in Summer 2020, what percentage of those queens successfully established?	
<i>(Include only those that laid fertilized eggs that developed into workers)</i>		
Type	Percentage	
New mated queens	<input type="text"/>	<i>Between 0-100%</i>
Queen cells	<input type="text"/>	<i>Between 0-100%</i>
Walk-away splits or killed queen and allowed colony to raise emergency queen	<input type="text"/>	<i>Between 0-100%</i>
Other	<input type="text"/>	<i>Between 0-100%</i>
33	Which characteristics of bees do you prioritize most when selecting breeding stock or buying queens or new colonies?	
<i>(Select up to 3)</i>		
<input type="checkbox"/> Low propensity to swarm	<input type="checkbox"/> Gentleness	
<input type="checkbox"/> Large early-spring populations	<input type="checkbox"/> Disease resistance	
<input type="checkbox"/> High brood production	<input type="checkbox"/> Varroa resistance	
<input type="checkbox"/> Good wintering	<input type="checkbox"/> Low cost of queens	
<input type="checkbox"/> Good honey production	<input type="checkbox"/> Availability of mated queens seasonally	
<input type="checkbox"/> Economical with stores	<input type="checkbox"/> Availability of queen cells seasonally	
<input type="checkbox"/> Local adaptation	<input type="checkbox"/> Queen longevity	
<input type="checkbox"/> Other, please specify: <input type="text"/>		
<input type="checkbox"/> Not applicable		
34	Are there characteristics that you want in your bees but are not able to attain to the degree desired?	
<i>(Specify the desired characteristics and any major barriers to adoption.)</i>		
Desired characteristic	Barrier to adoption	
-	-	
-	-	
-	-	
-	-	

35 What do you think were the **most common queen issues** during **Summer 2020** in your operation? *(Select up to 3)*

<input type="checkbox"/> I did not have queen issues	<input type="checkbox"/> Premature supersedure
<input type="checkbox"/> Drone layer	<input type="checkbox"/> Poor brood pattern
<input type="checkbox"/> Colony susceptible to diseases	<input type="checkbox"/> Mated queen was not accepted
<input type="checkbox"/> Queen cell failed to emerge/mate/establish	<input type="checkbox"/> Queen absent since last inspection or killed by accident
<input type="checkbox"/> Other, please specify: <input type="text"/>	

36 What do you think were the **most common queen issues** during **Winter 2020-21** in your operation? *(Select up to 3)*

<input type="checkbox"/> I did not have queen issues	<input type="checkbox"/> Premature supersedure
<input type="checkbox"/> Drone layer	<input type="checkbox"/> Poor brood pattern
<input type="checkbox"/> Colony susceptible to diseases	<input type="checkbox"/> Mated queen was not accepted
<input type="checkbox"/> Queen cell failed to emerge/mate/establish	<input type="checkbox"/> Queen absent since last inspection or killed by accident
<input type="checkbox"/> Other, please specify: <input type="text"/>	

How you managed your colonies

37 **During the survey period, did you initiate a round of...**

If Yes, how often per month did you initiate each activity? *(e.g. 3x for May)*

		Jan '20	Feb '20	Mar '20	Apr '20	May '20	Jun '20	Jul '20	Aug '20	Sep '20	Oct '20	Nov '20	Dec '20	Jan '21	Feb '21	Mar '21
... colony inspections?	<input type="radio"/> No <input type="radio"/> Yes															
... Varroa mite monitoring?	<input type="radio"/> No <input type="radio"/> Yes															
... Nosema monitoring?	<input type="radio"/> No <input type="radio"/> Yes															
... chemical treatment against Varroa?	<input type="radio"/> No <input type="radio"/> Yes															
... non-chemical intervention against Varroa?	<input type="radio"/> No <input type="radio"/> Yes															
... supplemental carbohydrate/sugar feed?	<input type="radio"/> No <input type="radio"/> Yes															
... supplemental protein feed? (e.g. protein patties)	<input type="radio"/> No <input type="radio"/> Yes															

38 Did you **treat for Varroa in conjunction with splitting, new colony installation, and/or brood breaks**? *(This includes the brood break when installing new packages.)*

No Yes If yes, please describe how:

A little bit about you

39	Why did you keep bees? <i>(Select all that apply)</i>	<input type="checkbox"/> For pollination contracts <input type="checkbox"/> To produce queens or queen cells for sale <input type="checkbox"/> To produce packages for sale <input type="checkbox"/> To produce nucs for sale <input type="checkbox"/> Other, please specify: <input type="text"/>	<input type="checkbox"/> To produce honey/wax/pollen for sale <input type="checkbox"/> To produce honey/wax/pollen/queens for personal use <input type="checkbox"/> For enjoyment/hobby <input type="checkbox"/> For teaching/education
40	What is your gender ?	<input type="text"/>	
41	How do you characterize your ethnicity ?	<input type="text"/>	
42	To which age bracket do you belong? <i>(Select one category)</i>	<input type="radio"/> 18-24 years old <input type="radio"/> 35-44 years old <input type="radio"/> 55-64 years old <input type="radio"/> 75-84 years old <input type="radio"/> 25-34 years old <input type="radio"/> 45-54 years old <input type="radio"/> 65-74 years old <input type="radio"/> 85 years or older	
43	Approximately how many years have you been keeping bees?	<input type="text"/>	<i>(in years)</i>
44	What are your current main sources of information to improve your beekeeping? <i>(Select up to 3)</i>	<input type="checkbox"/> Other beekeepers that you know personally (e.g. mentor, friends, family, neighbors...) <input type="checkbox"/> Other beekeepers that you DO NOT know personally (e.g. contributors to magazines, blogs, YouTube videos, social media...) <input type="checkbox"/> Beekeeping club / association (local or state) <input type="checkbox"/> Beekeeping organization (regional, national, international; e.g. WAS, HAS, EAS, ABF, AHPA, Apimondia) <input type="checkbox"/> Suppliers (of beekeeping equipment) <input type="checkbox"/> Other, please specify: <input type="text"/>	
		<input type="checkbox"/> Apiary inspector (or any state official) <input type="checkbox"/> University Extension / Outreach personnel <input type="checkbox"/> Scientists and researchers (e.g. university, USDA) <input type="checkbox"/> Non-profit organization (e.g. Bee Informed Partnership, Honey Bee Health Coalition, Project Apis m.)	
45	In what formats do you currently get most of your information? <i>(Select up to 3)</i>	<input type="checkbox"/> Informal discussions with other beekeepers outside of any group event <input type="checkbox"/> Informal discussions with other beekeepers at meeting/conventions (local, state, regional, national, international) <input type="checkbox"/> Lectures (in-person) <input type="checkbox"/> Lectures (online) <input type="checkbox"/> Hands-on demonstrations (in-person) <input type="checkbox"/> Hands-on demonstrations (online) <input type="checkbox"/> Podcasts <input type="checkbox"/> Other, please specify: <input type="text"/>	
		<input type="checkbox"/> Books <input type="checkbox"/> Bee journals or magazines <input type="checkbox"/> Extension publications <input type="checkbox"/> Scientific publications <input type="checkbox"/> Online blogs, newsletters, and websites <input type="checkbox"/> Online forums and social media	
46	In what formats would you most like to get your information in the future? <i>(Select up to 3)</i>	<input type="checkbox"/> Informal discussions with other beekeepers outside of any group event <input type="checkbox"/> Informal discussions with other beekeepers at meeting/conventions (local, state, regional, national, international) <input type="checkbox"/> Lectures (in-person) <input type="checkbox"/> Lectures (online) <input type="checkbox"/> Hands-on demonstrations (in-person) <input type="checkbox"/> Hands-on demonstrations (online) <input type="checkbox"/> Podcasts <input type="checkbox"/> Other, please specify: <input type="text"/>	
		<input type="checkbox"/> Books <input type="checkbox"/> Bee journals or magazines <input type="checkbox"/> Extension publications <input type="checkbox"/> Scientific publications <input type="checkbox"/> Online blogs, newsletters, and websites <input type="checkbox"/> Online forums and social media	

47	Is this the first year you are participating in our survey?	<input type="radio"/> Yes	<input type="radio"/> No
48	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"/> BIP Website	<input type="checkbox"/> Email from BIP	<input type="checkbox"/> State apiarist
	<input type="checkbox"/> Other, please specify:	<input type="checkbox"/> ABJ or Bee Culture	<input type="checkbox"/> Equipment suppliers
	<input type="text"/>		
49	Any comments? We would love to hear about what you like about our survey, but also how we can improve it.		
	<input type="text"/>		

Thank You!

We appreciate your time in answering our Colony Loss and Management Survey!

The Bee Informed Partnership is a non-profit organization that works to improve honey bee health.

By answering these questions on colony loss and management, you are helping us describe a realistic picture of the losses in the US and better understand factors that contribute to colony losses, so that we can work together to reduce losses.

Please visit beeinformed.org for insights on how the results of this survey can improve your colony management decision making!

