



Bruce Rauner, Governor
Raymond Poe, Director

Office of the Director

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October 25, 2018

The Honorable Bruce Rauner
Governor of Illinois
Capitol Building
Springfield, Illinois 62706-1150

Dear Governor Rauner:

In accordance with Section 3 of the Illinois Bees and Apiaries Act [510 ILCS 20/3], the Illinois Department of Agriculture is directed to submit an annual apiary inspection report to the Governor and the Illinois State Beekeepers Association. The report contains the findings of the Department's inspections of apiaries across Illinois on a fiscal year basis.

Please find enclosed the fiscal year 2018 Apiary Inspection Annual Report. Do not hesitate to contact Steve Chard, Apiary Inspection Supervisor, if there are questions regarding the contents of the report.

Sincerely,

A handwritten signature in cursive script, appearing to read "Raymond Poe", is written over a circular stamp or seal.

Raymond Poe
Director

Copy: Warren Goetsch, IDOA
Laura Sinclair, IDOA
Denise Albert, IDOA
Morgan Booth, IDOA
IDOA Apiary Inspectors
Dale Hill, ISBA
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Enclosure

Fiscal Year 2018 Apiary Inspection Annual Report
Illinois Department of Agriculture
(July 1, 2017 through June 30, 2018)

The Illinois Department of Agriculture administers the Illinois Bees and Apiaries Act (Act). Department Apiary Inspectors examine honeybee colonies around the state for the issuance of moving permits, to monitor the health of the bee population, to help prevent the spread of diseases and pests of the honeybee and to provide advice on general honeybee management.

Beekeeping in Illinois continues to be a hobbyist endeavor with almost 89% of the beekeepers managing 10 colonies or less (Table 1). 29 beekeepers maintain 100 or more colonies in the state.

Beekeepers are required to register with the Department of Agriculture. As of the end of Fiscal Year 2018, 4308 beekeepers were managing 30,017 colonies in 6,000 apiaries in Illinois (Table 2). The number of registered beekeepers has again increased significantly. 572 beekeepers were newly registered during the fiscal year. The total number of registered beekeepers statewide has increased each year since 2003 and is the most registered since 1990. Table 3 lists the number of colonies and apiaries registered in each county in Illinois. Will County had the highest number of colonies with 2,307. Lake County and Cook County placed second and third, with 2,213 and 1,810 colonies, respectively.

Colony inspection statistics for Fiscal Year 2018 and several previous years are included in Table 4. From July 1, 2017, through June 30, 2018, 862 apiaries containing 11,576 colonies were visited. Of these colonies, 5,469 were actually opened and inspected. American Foulbrood Disease (AFB) was detected in 7 colonies, or 0.13% of the colonies actually opened. This shows a significant decrease in the number of colonies infected with AFB as compared to 2017. In accordance with the Act, the diseased colonies were destroyed. The number of colonies infected with European Foulbrood (EFB) decreased while the number of colonies with Chalkbrood increased from Fiscal Year 2017.

Varroa mites continue to be found throughout the state. Inspection reports during the fiscal year indicated a large increase in varroa mite levels as compared to last year. This may be due in part to the randomness of inspections, the time of year inspections were made, environmental conditions, more effective treatments for varroa mite control and rotating miticides.

Reports from around the state indicated colony losses following the winter weather affected most beekeepers to some degree. Some lost most or all of their colonies, while some beekeepers had a minor loss. Also, interest in colonies for pollination continues to increase due to the lack of feral colonies and the realization of the importance of honeybee pollination.

Tracheal mites are not listed as a regulated parasite in the Illinois Bees and Apiaries Act and rules. However, examinations for tracheal mites can still be performed when requested. Tracheal mites were not discovered in any colonies in conjunction with Department apiary inspections for Fiscal Year 2018.

The small hive beetle (SHB) continues to be a growing problem in Illinois. Given the Department's inspections and input from the Industry, the SHB has spread most likely to all Illinois counties. In Fiscal year 2017, the IDOA found 1,111 colonies that contained the SHB, while in Fiscal Year 2018, 676 colonies had SHB. Based upon our Inspections to date in Fiscal Year 2019, we expect both of these numbers to be exceeded. Beekeepers are using various control methods (e.g., traps, other non-chemical control methods) to manage the beetle. The Department continues to closely monitor the movement of the SHB across Illinois.

Department Apiary Inspectors encountered several cases of overly aggressive bees during their inspections. Samples were collected and sent to the USDA laboratory in Tucson, Arizona for testing. All tests were negative for the presence of Africanized genes in those samples.

The Department and the Illinois State Beekeepers Association continue to encourage active communication between beekeepers and licensed pesticide applicators to accomplish the reduction of honeybee exposure to various pesticides (herbicides, insecticides, fungicides, etc.). There have been some instances where honeybees have been exposed to these materials, at times with catastrophic impacts. Progress is being made with the needed communication.

Licensed pesticide applicators can continue to gain contact and locational information related to Illinois beekeepers on the Department's website through the FieldWatch internet site. In addition, beekeepers can register their colonies on the FieldWatch site. The Department encourages pesticide applicators to contact beekeepers well in advance of an application to allow them to take needed steps to protect his or her honeybee colonies. This is a voluntary process that does not guarantee the complete elimination of potential pesticide exposures to honeybee colonies. However, if the pesticide user community and beekeepers work together, these potential exposures can be greatly reduced.

TABLE 1

Distribution of Beekeeper Size in Illinois as of July 1, 2018

| Number of Colonies | Number of Beekeepers | Percentage of Beekeepers |
|---------------------------|-----------------------------|---------------------------------|
| 0 | 186 | 4.30 |
| 1-5 | 3,071 | 71.07 |
| 6-10 | 574 | 13.28 |
| 11-20 | 269 | 6.23 |
| 21-50 | 150 | 3.47 |
| 51-100 | 42 | 0.97 |
| 101-200 | 21 | 0.49 |
| 201-300 | 1 | 0.02 |
| 301-400 | 0 | 0 |
| 401-500 | 2 | 0.05 |
| >500 | 5 | 0.12 |
| TOTAL | 4,321 | 100.0* |

* May not total 100% due to rounding.

TABLE 2

Illinois Beekeeper and Colony Statistics from 2000 through 2018
as of July 1 of each year.

| Year | Number of Registered Beekeepers | Number of Apiaries | Number of Colonies | Colonies/ Beekeeper | Colonies/ Apiary |
|------|---------------------------------|--------------------|--------------------|---------------------|------------------|
| 2018 | 4,308 | 6,000 | 30,017 | 7.0 | 5.0 |
| 2017 | 4,009 | 5,652 | 28,864 | 7.2 | 5.1 |
| 2016 | 3,522 | 5,136 | 25,339 | 7.2 | 4.9 |
| 2015 | 3,114 | 4,517 | 24,690 | 7.9 | 5.5 |
| 2014 | 2,766 | 4,023 | 26,004 | 9.4 | 6.5 |
| 2013 | 2,519 | 3,705 | 24,382 | 9.7 | 6.5 |
| 2012 | 1,825 | 2,849 | 21,231 | 11.6 | 7.5 |
| 2011 | 1,815 | 2,786 | 21,266 | 11.7 | 7.6 |
| 2010 | 1,631 | 2,565 | 20,547 | 12.6 | 8.0 |
| 2009 | 1,433 | 2,325 | 19,680 | 13.7 | 8.5 |
| 2008 | 1,366 | 2,303 | 19,556 | 14.3 | 8.5 |
| 2007 | 1,329 | 2,216 | 18,821 | 14.2 | 8.5 |
| 2006 | 1,264 | 2,157 | 20,217 | 16.0 | 9.4 |
| 2005 | 1,213 | 2,054 | 27,646 | 22.8 | 13.5 |
| 2004 | 1,141 | 1,940 | 19,572 | 17.2 | 10.1 |
| 2003 | 1,117 | 1,926 | 18,649 | 16.7 | 9.7 |
| 2002 | 1,107 | 1,914 | 17,963 | 16.3 | 9.4 |
| 2001 | 1,160 | 2,038 | 19,627 | 16.9 | 9.6 |
| 2000 | 1,142 | 1,975 | 18,504 | 16.2 | 9.4 |

TABLE 3

Number of Registered Apiaries and Colonies in Illinois Counties as of July 1, 2018

| COUNTY | # OF APIARIES | # OF COLONIES | COUNTY | # OF APIARIES | # OF COLONIES |
|------------|------------------|------------------|------------|------------------|------------------|
| Adams | 82 | 406 | Jefferson | 28 | 141 |
| Alexander | 2 | 14 | Jersey | 43 | 155 |
| Bond | 70 | 269 | JoDaviess | 59 | 1,071 |
| Boone | 36 | 488 | Johnson | 11 | 86 |
| Brown | 8 | 26 | Kane | 187 | 823 |
| Bureau | 52 | 415 | Kankakee | 74 | 362 |
| Calhoun | 14 | 66 | Kendall | 47 | 236 |
| Carroll | 32 | 366 | Knox | 34 | 135 |
| Cass | 11 | 36 | LaSalle | 115 | 469 |
| Champaign | 127 | 431 | Lake | 388 | 2,213 |
| Christian | 42 | 164 | Lawrence | 13 | 69 |
| Clark | 52 | 208 | Lee | 31 | 92 |
| Clay | 6 | 103 | Livingston | 35 | 113 |
| Clinton | 98 | 312 | Logan | 43 | 135 |
| Coles | 81 | 424 | Macon | 48 | 129 |
| Cook | 517 | 1,810 | Macoupin | 96 | 325 |
| Crawford | 37 | 146 | Madison | 224 | 750 |
| Cumberland | 28 | 101 | Marion | 54 | 175 |
| DeKalb | 43 | 246 | Marshall | 15 | 114 |
| DeWitt | 30 | 108 | Mason | 26 | 70 |
| Douglas | 24 | 82 | Massac | 9 | 29 |
| DuPage | 261 | 844 | McDonough | 27 | 139 |
| Edgar | 51 | 165 | McHenry | 192 | 1,420 |
| Edwards | 8 | 25 | McLean | 97 | 405 |
| Effingham | 23 | 127 | Menard | 37 | 142 |
| Fayette | 45 | 241 | Mercer | 33 | 87 |
| Ford | 10 | 26 | Monroe | 57 | 312 |
| Franklin | 45 | 273 | Montgomery | 71 | 268 |
| Fulton | 35 | 192 | Morgan | 43 | 124 |
| Gallatin | 5 | 15 | Moultrie | 39 | 165 |
| Greene | 20 | 70 | Ogle | 68 | 308 |
| Grundy | 25 | 195 | Peoria | 108 | 330 |
| Hamilton | 10 | 47 | Perry | 24 | 182 |
| Hancock | 43 | 199 | Piatt | 31 | 95 |
| Hardin | 2 | 18 | Pike | 30 | 139 |
| Henderson | 18 | 91 | Pope | 6 | 19 |
| Henry | 58 | 155 | Pulaski | 3 | 2 |
| Iroquois | 52 | 535 | Putnam | 17 | 86 |
| Jackson | 62 | 468 | Randolph | 28 | 171 |
| Jasper | 42 | 172 | Richland | 28 | 103 |

| COUNTY | # OF APIARIES | # OF COLONIES |
|-------------|------------------|------------------|
| Rock Island | 39 | 143 |
| Saline | 13 | 91 |
| Sangamon | 201 | 700 |
| Schuyler | 10 | 19 |
| Scott | 5 | 24 |
| Shelby | 46 | 185 |
| St. Clair | 147 | 580 |
| Stark | 7 | 23 |
| Stephenson | 28 | 110 |
| Tazewell | 69 | 175 |
| Union | 32 | 863 |
| Vermilion | 55 | 173 |
| Wabash | 8 | 20 |
| Warren | 24 | 110 |
| Washington | 35 | 274 |
| Wayne | 56 | 757 |
| White | 8 | 64 |
| Whiteside | 40 | 263 |
| Will | 224 | 2,307 |
| Williamson | 67 | 267 |
| Winnebago | 70 | 321 |
| Woodford | 89 | 280 |
| TOTAL | 5,999 | 30,017 |

TABLE 4

Illinois Apiary Inspection Statistics – 2005 through June 30, 2018

| Year | # of Apiaries Inspected | Colonies in Apiaries Inspected | # of Colonies Opened | AFB | | # of Colonies with EFB | # of Colonies w/ Chalk Brood | Varroa Mites | | # of Colonies Tracheal Mites |
|-------|-------------------------|--------------------------------|----------------------|---------------|----------------------|------------------------|------------------------------|---------------|-------------------------|------------------------------|
| | | | | # of Colonies | % of Colonies Opened | | | # of Colonies | % of Colonies Inspected | |
| FY18 | 862 | 11,576 | 5,469 | 7 | .1 | 74 | 32 | 578 | 10.57 | - |
| FY17 | 632 | 11,423 | 5,472 | 14 | 3 | 81 | 4 | 398 | 7.27 | - |
| FY16 | 897 | 13,611 | 5,301 | 33 | .6 | 131 | 13 | 546 | 10.30 | - |
| FY15 | 724 | 8,164 | 4,904 | 24 | .5 | 82 | 12 | 348 | 7.1 | - |
| FY14 | 565 | 6,553 | 3,504 | 15 | .4 | 91 | 16 | 364 | 10.4 | - |
| FY13 | 485 | 3,880 | 2,469 | 2 | .1 | 113 | 5 | 554 | 14.3 | - |
| FY12 | 399 | 2,807 | 2,031 | 17 | .8 | 45 | 5 | 391 | 13.9 | 2 |
| FY11 | 308 | 2,135 | 1,538 | 1 | .1 | 14 | 6 | 265 | 12.4 | 2 |
| FY10 | 406 | 2,695 | 1,998 | 8 | .4 | 35 | 28 | 483 | 17.9 | 10 |
| FY09 | 344 | 4,027 | 2,947 | 7 | .2 | 0 | 5 | 196 | 4.9 | 1 |
| FY08 | 314 | 2,073 | 1,523 | 12 | .8 | 3 | 10 | 113 | 5.5 | 1 |
| FY07 | 343 | 2,561 | 1,824 | 23 | 1.3 | 7 | 24 | 157 | 6.1 | 1 |
| FY06 | 346 | 2,673 | 1,939 | 36 | 1.9 | 2 | 17 | 182 | 6.8 | - |
| FY 05 | 296 | 4,695 | 2,603 | 50 | 1.9 | 10 | 69 | 171 | 3.6 | - |

AFB = American Foulbrood Disease
 EFB = European Foulbrood Disease