**Attachments for NC1173 Project renewal (December 2018)**

***Table 1. Summary of funding sources and amounts reported by NC1173 committee members for 2014 to the present.***

|  |  |
| --- | --- |
| Funding Sources | Estimated totals ($) |
| USDA NIFA | 28,356,234 |
| State Agencies | 4,454,615 |
| Other (beekeeping associations, non-profits, companies) | 3,365,895 |
| National Science Foundation (NSF) | 2,899,360 |
| Foundation for Food and Agriculture Research Program (FFAR) | 2,050,088 |
| National Institutes of Health (NIH) | 784,507 |
| Sustainable Agriculture Research and Education Program (SARE-Regional USDA programs) | 166,493 |
| Environmental Protection Agency | 69,982 |
| Total funding leveraged by NC1173 members | $42,147,173 |

***Table 2. List of USDA funding programs supporting research and extension efforts as reported by NC1173 committee members for 2014 to the present.***

|  |
| --- |
| USDA NIFA- Agriculture and Food Research Initiative (AFRI) |
| USDA NIFA -Animal Health and Research Disease (AHRD) |
| USDA-NIFA Beginning Farmer Rancher Development Program (BFRDP) |
| USDA NIFA-Crop Protection and Pest Management (CPPM) |
| USDA NIFA-Exploratory Grant (EG) |
| USDA NIFA- National Needs Graduate and Postgraduate Fellowship Program (NNF) |
| USDA NIFA- Organic and Extension Initiative (OEI) |
| USDA-NIFA Research & Extension Experiences for Undergraduates (REEU) |
| USDA NIFA-Specialty Crop Research Initiative (SCRI) |
| USDA NRCS Federal Conservation Innovation Grant Program (FCIG) |

***Table 3. Summary list of publications by topic and year reported by NC1173 committee members for 2014 to the present.***

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Publications by topic | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 (in press, in review, or submitted) | Total |
| Pests and pathogens | 6 | 7 | 4 | 8 | 11 | 3 | 39 |
| Pesticides, nutrition | 11 | 14 | 11 | 18 | 15 | 1 | 70 |
| Genetics, Breeding, Diversity | 11 | 11 | 13 | 15 | 15 | 2 | 67 |
| Management | 2 | 3 | 1 | 3 | 5 |  | 14 |
| Interactions among stressors | 6 | 10 | 16 | 18 | 16 | 2 | 68 |
| Total | 36 | 45 | 45 | 62 | 62 | 8 | 258 |

***Table 4. Previous NC1173 objectives have been modified to better address multiple biotic and abiotic stressors, working in concert, contributing to the decline in honey bee and pollinator health***

1. To evaluate the role and causative mechanisms of parasitic mites, viruses, and microbes in pollinator abundance and honey bee colony success

2. To facilitate the development of honey bee stock selection, maintenance and production programs that promote genetic diversity and incorporate traits conferring resistance to parasites and pathogens

3. To determine how land management practices affect pollinator nutrition and how nutrition affects honey bee colony productivity and success

4. To assess the effects of exposure to pesticides and other xenobiotics on the survival, health and productivity of honey bee colonies and pollinator abundance and diversity

5. To determine the effects of interactions among various factors affecting pollinator and honey bee colony health

6. To develop and recommend "best practices" for beekeepers, growers, land managers and homeowners to promote honey bee and pollinator health

**Table 5. Research publications by current and former NC1173 members (bolded) from 2014 to present**

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