

**BARD Approved Projects**  
**2016 - 2019**  
**Agric Economics and Rural Development**

6/10/2019

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<b>US-4880-16</b>	<b>Building local brand for fresh fruits and vegetables: A strategic approach aimed at strengthening the local agricultural sector</b>	App. Duration: 3 years
	Just, R.                      U Cornell                      NY	
	Heiman, A.                Hebrew U	
<b>US-4986-17F</b>	<b>Assessing the economics of processed natural resources - the case of seaweed</b>	App. Duration: 1 year
	Zilberman, D.              UC, Berkeley              CA	
	Palatnik, R.                Yezreel Valley	
	College	
	Golberg, A.                Tel Aviv U	
<b>IS-5150-19</b>	<b>Climate change and the dairy sector in Israel and the US</b>	App. Duration: 1 year
	Fishman, R.                Tel Aviv U	
	Frank, E.                    U Chicago                    IL	
	Kimhi, A.                   Hebrew U	



**BARD Approved Projects**  
**2016 - 2019**  
**Animal Health and Invasive Species**

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IS-4903-16C 4583	<b>Diagnostics and vaccines for containment of TiLV - a novel RNA virus lethal to <i>Tilapia</i></b> Bacharach, E.                      Tel Aviv U Lipkin, W.I.                          U Columbia                          NY Eldar, A.                              Isr. Vet. Inst.	App. Duration: 3 years
IS-4905-16R 4804	<b>Identification of virulence-associated genes in <i>Mycobacterium avium</i> subsp. <i>paratuberculosis</i> by mutant-library construction</b> Barkan, D.                          Hebrew U Chang, Y.F.                          U Cornell                              NY McDonough, L                      U Cornell                              NY Fubini, S.                            U Cornell                              NY Gleed, R.                            U Cornell                              NY	App. Duration: 2 years
IS-5001-17C 4576	<b>A proteomics and transcriptomics study into Myxozoan parasite infection mechanisms</b> Lotan, T.                            U Haifa Atkinson, S.                        Oregon St. U                          OR Bartholomew, J.                    Oregon St. U                          OR	App. Duration: 3 years
IS-5005-17R 4904	<b>Novel vaccination strategies to combat chicken arthritis/tenosynovitis reoviruses in US and Israel</b> Lublin, A.                          Isr. Vet. Inst. Goyal, S.M.                        U Minnesota                          MN Porter, E.                          U Minnesota                          MN Ly, H.                                U Minnesota                          MN Farnoushi, Y.                      Isr. Vet. Inst. Mor, S.                                U Minnesota                          MN	App. Duration: 3 years
IS-5066-18R 5004	<b>Identification of virulence mechanisms in mammary pathogenic <i>Mycoplasma bovis</i> using unbiased whole genome random mutagenesis</b> Lysnyansky, I.                      Isr. Vet. Inst. Almeida, R.                        U Tennessee,                          TN Knoxville Shpigel, N.                        Hebrew U Kerro-Dego, O.                    U Tennessee,                          TN Knoxville	App. Duration: 3 years
IS-5067-18	<b>Treatment and prevention of mastitis in dairy cows using cell based therapy</b> Schlesinger, S.                    Hebrew U Lippolis, J.D.                      USDA, ARS                          IA Shpigel, N.                        Hebrew U	App. Duration: 1 year
US-5157-19	<b>Identification, characterization and testing of geographically conserved <i>Babesia bovis</i> vaccine antigen candidates</b> Ueti, W.                            USDA, ARS                          WA Leszkowicz Mazuz, M.            Isr. Vet. Inst.	App. Duration: 1 year

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**Animal Production**

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<b>IS-4892-16CR</b> 4489 4795	<b>Genetic manipulations of MC4R for increased growth and feed efficiency in fish</b> Gothilf, Y. Tel Aviv U Cone, R. U Michigan MI Levavi-Sivan, B. Hebrew U Harpaz, S. ARO, Min. Ag.	App. Duration: 3 years
<b>IS-4899-16R</b> 4803	<b>Fibroblast growth factor signaling requirements for embryonic and placental development in ruminants</b> Gershon, E. ARO, Min. Ag. Ealy, A. Virginia Tech VA	App. Duration: 1 year
<b>IS-4995-17R</b> 4981	<b>Use of plant based biofilters to create sustainable mariculture systems</b> Guttman, L. Isr. Ocean. Res. Main, K. L. Mote FL Brennan, N. Mote FL Tarnecki, A. Mote FL Shpigel, M. Isr. Ocean. Res.	App. Duration: 3 years
<b>US-4997-17</b>	<b>Genetic analyses of recombination and PRDM9 alleles and their implications in dairy cattle breeding</b> Liu, G. USDA, ARS MD Seroussi, E. ARO, Min. Ag. Ma, L. U Maryland MD	App. Duration: 3 years
<b>US-5000-17R</b> 4897	<b>Genotypes and phenotypes of telomere length in Holstein cattle: Actors or reporters</b> Dechow, C.D. Penn State U PA Shabtay, A. ARO, Min. Ag. Tzfati, Y. Hebrew U Ott, T. Penn State U PA Soller, M. Hebrew U Liu, W. Penn State U PA Cohen-Zinder, M. ARO, Min. Ag. Lipkin, E. Hebrew U	App. Duration: 3 years
<b>US-5074-18CR</b> 4113 4992	<b>Modulating intestinal cellular maturation and differentiation in broilers by in ovo feeding</b> Wong, E.A. Virginia Tech VA Uni, Z. Hebrew U	App. Duration: 3 years
<b>IS-5077-18R</b> 5003	<b>The regulation of size related division of labor in a key pollinator and its impact on crop pollination efficacy</b> Bloch, G. Hebrew U Woodard, H.S. UC, Riverside CA	App. Duration: 3 years
<b>IS-5078-18</b>	<b>Characterization of the architecture of hygienic behavior of honeybees to enable breeding for improved honeybee health</b> Soroker, V. ARO, Min. Ag. Rueppell, O. U NC Greensboro NC	App. Duration: 3 years



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**2016 - 2019**  
**Crop Health and Invasive Species**

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IS-4931-16C 4510	<b>The role of FLS3 and BSK830 in pattern-triggered immunity in tomato</b> Sessa, G.                      Tel Aviv U Martin, G.B.                    Boyce Thompson            NY	App. Duration: 3 years
IS-4932-16	<b>Fungal-specific histone deacetylase inhibitors, novel players in combating pathogenic fungi</b> Covo, S.                        Hebrew U Ma, L.J.                         U Mass                         MA	App. Duration: 3 years
IS-4937-16	<b>Molecular dissection of host and pathogen factors in <i>Botrytis cinerea</i> pathogenesis for improved genetic resistance</b> Sharon, A.                      Tel Aviv U Mengiste, T.D.                Purdue                         IN	App. Duration: 3 years
US-4947-16R 4838	<b>Basil gene pool enrichment for <i>Downy Mildew</i> resistance and QTL development using genotyping by sequencing</b> Simon, J.E.                      Rutgers                         NJ Cohen, Y.                        Bar Ilan U	App. Duration: 3 years
IS-4953-16	<b>The molecular mechanism for the <i>Tomato yellow leaf curl virus</i> resistance at the ty-5 locus</b> Lapidot, M.                      ARO, Min. Ag. Citovsky, V.                      NYSU, Stony Brook        NY	App. Duration: 3 years
IS-5023-17C 4734	<b>Bacterial fruit blotch: Elucidating the mechanisms of fruit infection by <i>Acidovorax citrulli</i></b> Burdman, S.                      Hebrew U Walcott, R.                       U Georgia                      GA Zhao, B.                         Virginia Tech                 VA Welbaum, E                       Virginia Tech                 VA	App. Duration: 3 years
IS-5024-17R 4944	<b>Identifying unique and overlapping roles of reactive oxygen species in rice blast and Southern corn leaf blight</b> Horwitz, B.                       Technion Donofrio, M.                      U Delaware                    DE	App. Duration: 3 years
IS-5027-17C 4513	<b>The role and control of the RNA-dependent RNA polymerase 1 gene family in cucumber virus defense</b> Gal-On, A.                        ARO, Min. Ag. Ding, S.W.                        UC, Riverside                CA	App. Duration: 3 years
US-5029-17	<b>Systems biology approaches to dissect virus-host interactions to develop crops with broad-spectrum virus resistance</b> Wang, X.F.                        Virginia Tech                 VA Schuldiner, M.                    Weizmann Inst.	App. Duration: 3 years

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<b>IS-5033-17</b>	<b>Small molecule cocktails designed to impair virulence targets in soft rot <i>Erwinias</i></b> Yedidia, I. ARO, Min. Ag. Charkowski, A.O. Colorado St. U CO Senderowitz, H. Bar Ilan U	App. Duration: 3 years
<b>IS-5085-18</b>	<b>Targets for CRISPR/Cas9-mediated gene drive in <i>Bemisia tabaci</i>: A strategy for controlling a global pest</b> Morin, S. Hebrew U Walling, L.L. UC, Riverside CA Atkinson, P.W. UC, Riverside CA Li, J. UC, Riverside CA Tabashnik, B.E. U Arizona AZ	App. Duration: 3 years
<b>IS-5087-18R</b>	<b>Cloning and characterization of a novel leaf rust and stripe rust resistance gene from Sharon goatgrass</b> Minz-Dub, A. Tel Aviv U Muehlbauer, G.J. U Minnesota MN Millet, E. Tel Aviv U Sharon, A. Tel Aviv U	App. Duration: 3 years
<b>US-5089-18</b>	<b>Cloning and comparative sequence analysis of powdery mildew and leaf rust resistance gene complements in wild barley</b> Steffenson, B.J. U Minnesota MN Mayrose, I. Tel Aviv U Muehlbauer, G.J. U Minnesota MN Sharon, A. Tel Aviv U	App. Duration: 3 years
<b>US-5090-18F</b>	<b>Novel nematode-derived insecticidal proteins for pest control</b>  Dillman, A.R. UC, Riverside CA Ment, D. ARO, Min. Ag.	App. Duration: 1 year
<b>IS-5092-18R</b>	<b>Identifying molecular markers for defense metabolites against aphid feeding in wild emmer wheat</b> Tzin, V. Ben Gurion U Dilkes, B. Purdue IN Sela, H. Tel Aviv U	App. Duration: 3 years
<b>IS-5177-19</b>	<b>Cutting edge culture independent pipeline for detection of novel anti-fungal plant protection compounds in suppressive soils</b> Cytryn, E. ARO, Min. Ag. Brady, S.F. U Rockefeller NY Frenkel, O. ARO, Min. Ag.	App. Duration: 1 year
<b>US-5179-19</b>	<b>Elucidating the role of microbiome in host plant colonization and foraging of invasive fruit flies</b> Wong, A. U Florida FL Jurkevitch, E. Hebrew U Yuval, B. Hebrew U	App. Duration: 3 years

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**Crop Health and Invasive Species**

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<b>IS-5180-19</b>	<b>Developing synthetic sex ratio distorters for the genetic control of the Mediterranean fruit fly and the New World screwworm</b>	App. Duration: 3 years
	Papathanos, P. Hebrew U	
	Scott, M.J. N Carolina St. U NC	
<b>US-5182-19R</b>	<b>The impacts and underlying mechanisms of carbon dioxide narcosis in bumble bees</b>	App. Duration: 3 years
5070	Amsalem, E. Penn State U PA	
	Levin, E. Tel Aviv U	
	Schilder, R. Penn State U PA	
<b>IS-5183-19</b>	<b>New formulation for biopesticides based on single cell encapsulation via pickering emulsions</b>	App. Duration: 3 years
	Mechrez, G. ARO, Min. Ag.	
	Shapiro-Ilan, D. USDA, ARS GA	
	Ment, D. ARO, Min. Ag.	

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**2016 - 2019**  
**Crop Production**

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<b>IS-4911-16</b>	<b>Characterization of genetic variation and yield heterosis in <i>Cucumis melo</i></b>	App. Duration: 3 years
	Gur, A.                      ARO, Min. Ag.	
	Buckler, E.S.              U Cornell                      NY	
	Burger, J.                      ARO, Min. Ag.	
	Tadmor, Y.                      ARO, Min. Ag.	
	Klapp, I.                      ARO, Min. Ag.	
<b>IS-4915-16R</b>	<b>Functional analysis of barley cysteine proteases and their role in</b>	App. Duration: 3 years
4814	<b>nitrogen remobilization from senescing leaves</b>	
	Fluhr, R.                      Weizmann Inst.	
	Fischer, A.                      Montana St. U                      MT	
<b>US-4916-16</b>	<b>Positional cloning of a rye QTL responsible for water stress</b>	App. Duration: 3 years
	<b>resistance in wheat based on radiation mapping and comparative</b>	
	<b>genomics</b>	
	Dubcovsky, J.                      UC, Davis                      CA	
	Fahima, T.                      U Haifa	
	Krugman, T.                      U Haifa	
	Howell, T.                      UC, Davis                      CA	
<b>US-4918-16CR</b>	<b>Characterization of the <i>Or</i> regulatory network for carotenoid</b>	App. Duration: 3 years
4423      4743	<b>biofortification in food crops - phase II</b>	
	Li, L.                      USDA, ARS                      NY	
	Tadmor, Y.                      ARO, Min. Ag.	
	Burger, J.                      ARO, Min. Ag.	
	Portnoy, V.                      ARO, Min. Ag.	
	Schaffer, A.                      ARO, Min. Ag.	
	Fei, Z.                      Boyce Thompson                      NY	
<b>IS-4919-16R</b>	<b>Systematic analyses of the roles of <i>Solanum Lycopersicum</i> ABA</b>	App. Duration: 3 years
4760	<b>receptors in environmental stress and development</b>	
	Mosquna, A.                      Hebrew U	
	Cutler, S.                      UC, Riverside                      CA	
<b>IS-4921-16F</b>	<b>Novel strategies to induce male sterility and restore fertility in</b>	App. Duration: 1 year
	<b><i>Brassicaceae</i> crops</b>	
	Ostersetzer-Biran, O.                      Hebrew U	
	Mower, J.                      U Nebraska                      NE	
<b>IS-4926-16R</b>	<b>Understanding the molecular basis of carotenoid synthesis and</b>	App. Duration: 3 years
4811	<b>accumulation in stone fruits: A platform to enhance fruit value</b>	
	Isaacson, Tal                      ARO, Min. Ag.	
	Gasic, K.                      Clemson U                      SC	
	Bielenberg, D.G.                      Clemson U                      SC	
	Lewinsohn, E.                      ARO, Min. Ag.	
	Holland, D.                      ARO, Min. Ag.	

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<b>IS-4929-16FR</b>	<b>Drought adaptation mechanisms in pine hybrids</b>	App. Duration: 1 year
4824	David-Schwartz, R.      ARO, Min. Ag. Neale, D.B.              UC, Davis              CA	
<b>US-5009-17</b>	<b>Cucumis fruit surface biology: Genetic analysis of fruit exocarp features in melon (<i>C. melo</i>) and cucumber (<i>C. sativus</i>)</b>	App. Duration: 3 years
	Grumet, R.              Michigan St. U              MI Schaffer, A.              ARO, Min. Ag. Barry, C.                Michigan St. U              MI Burger, J.                ARO, Min. Ag. Gur, A.                  ARO, Min. Ag. Tadmor, Y.                ARO, Min. Ag.	
<b>IS-5010-17</b>	<b>Improving fleshy fruit set by dissecting the AGL6 regulatory pathway</b>	App. Duration: 3 years
	Arazi, T.                ARO, Min. Ag. Grotewold, E.            Michigan St. U              MI	
<b>IS-5020-17</b>	<b>The molecular dissection of the crop maturation trait in peanut</b>	App. Duration: 3 years
	Hovav, R.                ARO, Min. Ag. Ozias-Akins, P.            U Georgia                  GA	
<b>IS-5103-18R</b>	<b>Engineering parthenocarpic fruit production in tomato</b>	App. Duration: 3 years
4922	Ori, N.                  Hebrew U Reed, J.W.                U No. Carolina              NC	
<b>IS-5106-18R</b>	<b>Exploring the polyembryonic seed trait in mango as a basis for a biotechnology platform for fruit tree crops</b>	App. Duration: 3 years
5008	Sherman, A.              ARO, Min. Ag. Kuhn, D.N.                USDA, ARS                  FL Cohen, Y.                ARO, Min. Ag. Ophir, R.                 ARO, Min. Ag.	
<b>US-5112-18</b>	<b>Regulation of plant transpiration by carbohydrate availability</b>	App. Duration: 3 years
	Holbrook, N.M            Harvard U                  MA Sperling, O.              ARO, Min. Ag. Ben-Gal, A.                ARO, Min. Ag. Hochberg, U.              ARO, Min. Ag.	
<b>IS-5116-18</b>	<b>Increasing the spectrum of genetic variation accessible for wheat breeding by using loss-of-function mutants of anti-recombination genes</b>	App. Duration: 3 years
	Korol, A.B.                U Haifa Akhunov, E.                Kansas St. U                KS	

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**Crop Production**

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<b>IS-5120-18C</b> 4818	<b>Fine tuning the shoot and inflorescence architectures for improved tomato yield</b> Eshed, Y. Lippman, Z.B.	Weizmann Inst. Cold Spring Harbor NY	App. Duration: 3 years
<b>IS-5188-19C</b> 4744	<b>Genetic dissection of yield components in wheat using Pangenome and association study</b> Distelfeld, A. Poland, J. Sela, H.	Tel Aviv U Kansas St. U KS Tel Aviv U	App. Duration: 3 years
<b>US-5191-19C</b> 4916	<b>Validation of candidate genes for a QTL responsible for water stress tolerance and their diversity in wheat</b> Dubcovsky, J. Fahima, T.	UC, Davis CA U Haifa	App. Duration: 3 years
<b>IS-5195-19R</b> 5104	<b>Developing new rooting enhancers and strategies for root regeneration from cuttings of pecan (Carya Illinoensis) mature root-stocks</b> Sadot, E. Blancaflor, E.B.  Weinstain, R. Rohla, C.	ARO, Min. Ag. Noble Research Institute, LLC Tel Aviv U Noble Research Institute, LLC	App. Duration: 3 years
<b>IS-5196-19</b>	<b>Genetic and physiological dissection of novel grain protein content QTLs from wild emmer wheat for nutritional improvement of wheat grains</b> Krugman, T. Beckles, D. Bloom, A.J.	U Haifa UC, Davis CA UC, Davis CA	App. Duration: 3 years
<b>US-5202-19</b>	<b>Elucidating and manipulating the CLAVATA-WUSCHEL circuit in cotton to understand meristem homeostasis in relation to fruit size and shape</b> Ayre, B.G. Eshed-Williams, L. Van der Knaap, E.	U No. Texas TX Hebrew U U Georgia GA	App. Duration: 3 years
<b>IS-5205-19</b>	<b>A general platform for designing synthetic operons for production of biofuels and other foreign pathways in algal chloroplasts</b> Yacoby, I. Barkan, A.	Tel Aviv U U Oregon OR	App. Duration: 3 years

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**2016 - 2019**  
**Environment/Water/Renewable Resources**

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<b>IS-4964-16R</b>	<b>DOM affected behavior of manufactured nanoparticles in soil-plant system</b>	App. Duration: 3 years
4868	<p>Chefetz, B. Hebrew U</p> <p>Xing, B. U Mass MA</p> <p>Eshed-Williams, L. Hebrew U</p> <p>Polubesova, T. Hebrew U</p> <p>Unrine, J.M. U Kentucky KY</p>	
<b>IS-4977-16R</b>	<b>Nanocomposite hydrogel membranes for fouling mitigation in wastewater reclamation for agricultural production</b>	App. Duration: 3 years
4874	<p>Bernstein, R. Ben Gurion U</p> <p>Elimelech, M. Yale CT</p> <p>Chen, K.L. U Johns Hopkins MD</p>	
<b>IS-4982-16F</b>	<b>Development of heat-pulse sensors for measuring fluxes of water and solutes under the root zone</b>	App. Duration: 1 year
	<p>Kamai, T. ARO, Min. Ag.</p> <p>Kluitenberg, G. J. Kansas St. U KS</p> <p>Ben-Gal, A. ARO, Min. Ag.</p>	
<b>US-5046-17R</b>	<b>Metabolic network approaches for deciphering microbial functions in amendment-based solutions for soil-borne disease suppression</b>	App. Duration: 3 years
4966	<p>Mazzola, M. USDA, ARS WA</p> <p>Freilich, S. ARO, Min. Ag.</p> <p>Faigenboim, A. ARO, Min. Ag.</p>	
<b>US-5051-17</b>	<b>Energy, nutrient and water recovery from dairy waste</b>	App. Duration: 3 years
	<p>Jassby, D. UCA, Los Angeles CA</p> <p>Gross, A. Ben Gurion U</p> <p>Walker, S. UC, Riverside CA</p> <p>Tester, J. W. U Cornell NY</p>	
<b>IS-5124-18</b>	<b>Risk of soil erosion by water estimated with remotely-sensed rainfall data, process-based models and weather generators</b>	App. Duration: 3 years
	<p>Morin, E. Hebrew U</p> <p>Goodrich, D.C. USDA, ARS AZ</p> <p>Assouline, S. ARO, Min. Ag.</p> <p>Nearing, M. USDA, ARS AZ</p> <p>Argaman, E. ARO, Min. Ag.</p> <p>Guertin, D.P. U Arizona AZ</p> <p>Hernandez, M. USDA, ARS AZ</p>	
<b>IS-5125-18R</b>	<b>Increasing water availability through agricultural groundwater recharge</b>	App. Duration: 3 years
5049	<p>Furman, A. Technion</p> <p>Dahlke, H.E. UC, Davis CA</p> <p>Weisbrod, N. Ben Gurion U</p> <p>Raveh, E. ARO, Min. Ag.</p>	

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**Environment/Water/Renewable Resources**

<b>IS-5130-18</b>	<b>Distributed UV LEDs for combined control of fouling of drip emitters and disinfection during irrigation with reclaimed wastewater effluent</b>	App. Duration: 3 years
	Friedler, E. Technion Linden, K.G. U of Colorado, CO Boulder	
<b>US-5135-18C</b> 4771	<b>In planta transformation of wastewater-derived contaminants</b>	App. Duration: 3 years
	Pedersen, J.A. U Wisconsin WI Shenker, M. Hebrew U Chefetz, B. Hebrew U Roback, S. UCA, Irvine CA	
<b>IS-5209-19</b>	<b>Integrated wastewater treatment process for recovering high-quality irrigation water and nutrients</b>	App. Duration: 3 years
	Bernstein, R. Ben Gurion U Shihong, L. Vanderbilt U. TN Nir, O. Ben Gurion U	
<b>IS-5212-19R</b> 5128	<b>Root exudates and rhizosphere nutrient transport: Improving plant nutrient-uptake models</b>	App. Duration: 3 years
	Schwartz, N. Hebrew U Neumann, R.B. U Washington WA	
<b>IS-5218-19</b>	<b>Spatiotemporal decision support systems for recognizing variability and managing precision irrigation</b>	App. Duration: 3 years
	Ben-Gal, A. ARO, Min. Ag. O'Shaughnessy, S. USDA, ARS TX Cohen, Y. ARO, Min. Ag. Colaizzi, D. USDA, ARS TX Moorhead, J.E. USDA, ARS TX Yasuor, H. ARO, Min. Ag. Hansen, N. Brigham Young U UT Hopkins, B. Brigham Young U UT Heaton, M. Brigham Young U UT Kerry, R. Brigham Young U UT Jensen, R.R. Brigham Young U UT	
<b>IS-5221-19</b>	<b>Integrated solution systems development for precision fertilizer management</b>	App. Duration: 3 years
	Litaor, M. MIGAL R&D Ippolito, J. Colorado St. U CO Shir, O. MIGAL R&D Liran, O. MIGAL R&D Reichman, O. MIGAL R&D Khosla, R. Colorado St. U CO Whitley, D.L. Colorado St. U CO	

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**Food Product-Safety, Security, Quality**

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<b>IS-4957-16R</b> 4855	<b>How berry enlargement practices affect the flavor of grapes</b>	App. Duration: 3 years
	Lichter, A.                      ARO, Min. Ag. Ebeler, S.E.                    UC, Davis                      CA Lewinsohn, E.                 ARO, Min. Ag.	
<b>IS-4960-16FR</b> 4843	<b>The potential use of a highly-stable lactonase from hyperthermophilic archaea for disruption of quorum sensing in soft rot <i>Pectobacteria</i></b>	App. Duration: 1 year
	Helman, Y.                      Hebrew U Elias, M.                        U Minnesota                    MN Aksan, A.                       U Minnesota                    MN	
<b>US-4962-16R</b> 4854	<b>Developing advanced chemical and computational methods for assessing organoleptic properties of olive oil</b>	App. Duration: 3 years
	Wang, S.C.                      UC, Davis                      CA Benjamin, O.                 Tel Hai College Dag, A.                          ARO, Min. Ag. Tagkopoulos, I.              UC, Davis                      CA	
<b>IS-5038-17C</b> 4864	<b>Postharvest sweetening of potato seed tubers and effects on their yield performance</b>	App. Duration: 3 years
	Eshel, D.                        ARO, Min. Ag. Jiang, J.                         Michigan St. U                MI	
<b>IS-5040-17</b>	<b>Microbial networks on harvested apples and the design of antagonistic consortia to control postharvest pathogens</b>	App. Duration: 3 years
	Droby, S.                        ARO, Min. Ag. Wisniewski, M.E.              USDA, ARS                    WV Freilich, S.                      ARO, Min. Ag. Norelli, J.L.                    USDA, ARS                    WV Faigenboim, A.                ARO, Min. Ag.	
<b>IS-5042-17C</b> 4773	<b>Mechanisms governing the global regulation of mycotoxin production and pathogenicity by <i>Penicillium expansum</i> in postharvest fruits</b>	App. Duration: 3 years
	Sionov, E.                        ARO, Min. Ag. Keller, N.P.                    U Wisconsin                    WI Barad-Kotler, S.                ARO, Min. Ag.	
<b>IS-5143-18R</b> 5041	<b>New insights into apple calcium application: Understanding its contradicting effects on postharvest disorders for improved fruit quality</b>	App. Duration: 3 years
	Gamrasni, D.                    MIGAL R&D Kalcsits, L.                    WA State U                    WA Friedman, H.                    ARO, Min. Ag.	

**BARD Approved Projects**  
**2016 - 2019**  
**Food Product-Safety, Security, Quality**

6/10/2019

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<b>IS-5146-18</b>	<b>Green nature inspired nano-sanitizers for enhancing safety of ready-to-eat fruits and vegetables</b>	App. Duration: 3 years
	Poverenov, E.                      ARO, Min. Ag.	
	Demokritou, P.                    Harvard U                      MA	
	Luo, Y.                              USDA, ARS                      MD	
	Rodov, V.                          ARO, Min. Ag.	
<b>US-5222-19</b>	<b>Application of metagenomic approaches to examine the virome in recycled waters for safe and sustainable reuse in irrigation</b>	App. Duration: 3 years
	Betancourt, W.Q.                  U Arizona                      AZ	
	BarOr, I.                            Sheba - Tel	
	Hashomer	
	Zuckerman, N.S.                  Sheba - Tel	
	Hashomer	
	Bright, K.R.                        U Arizona                      AZ	
<b>IS-5223-19C</b> 4125	<b>Enhancement of tomato flavor by upregulating the mono- and sesquiterpene biosynthetic pathways using genes from wild tomato relatives</b>	App. Duration: 3 years
	Lewinsohn, E.                      ARO, Min. Ag.	
	Dudareva, N.                        Purdue                          IN	
	Sitrit, Y.                            Ben Gurion U	
	Schaffer, A.                        ARO, Min. Ag.	