

|                    |  |                 |   |
|--------------------|--|-----------------|---|
| <b>IS-2676-97</b>  | <b>Etiology of the Rugose Wood Disease of Grapevine and Molecular Study of the Associated Trichoviruses</b>                          |                 | Plant Protection<br>App. Duration: 3 years            |
|                    | Gafny, R.  | ARO, Min. Ag.   |   |
|                    | Rao, A.L.N.  | UC, Riverside   | CA  |
|                    | Tanne, E.  | ARO, Min. Ag.   |   |
| <b>IS-2679-97</b>  | <b>Extracellular Matrix Molecules of the Eggshell as Related to Eggshell Quality</b>   |                 | Animal Production<br>App. Duration: 3 years           |
|                    | Pines, M.  | ARO, Min. Ag.   |   |
|                    | Bar, A.  | ARO, Min. Ag.   |   |
|                    | Carrino, D.A.  | Case Western    | OH  |
|                    | Caplan, A.I.   | Case Western    | OH  |
|                    | Dennis, J.E.   | Case Western    | OH  |
| <b>IS-2680-97</b>  | <b>On-line Fault Detection and Diagnosis for Greenhouse Environmental Control</b>  |                 | Bioengineering & Sensors<br>App. Duration: 3 years    |
|                    | Seginer, I.  | Technion        |   |
|                    | Albright, L.D.   | Cornell U       | NY  |
|                    | Langhans, R.W.   | Cornell U       | NY  |
| <b>IS-2684-97R</b> | <b>Lek Behavior of Mediterranean Fruit Flies: An Experimental Analysis</b>   |                 | Plant Protection<br>App. Duration: 3 years            |
| 2567               | Yuval, B.  | Hebrew U        |   |
|                    | Shelly, T.E.   | U Hawaii        | HI  |
| <b>IS-2686-97C</b> | <b>Regulation of Avocado Resistance to Postharvest Pathogens by Modulation of the Biosynthesis of Antifungal Compounds</b>           |                 | Postharvest<br>App. Duration: 3 years                 |
| 1960               | Prusky, D.B.   | ARO, Min. Ag.   |   |
|                    | Keen, N.T.   | UC, Riverside   | CA  |
|                    | Browse, J.   | WA State U      | WA  |
|                    | Leikin-Frenkel, A.I.   | ARO, Min. Ag.   |   |
| <b>IS-2703-97</b>  | <b>Role of Membranes Thermobehavior in Chilling Injury of Bovine Oocyte as an Important Step Toward Cryobanking of Female Genome</b> |                 | Animal Production<br>App. Duration: 3 years           |
|                    | Arav, A.   | ARO, Min. Ag.   |   |
|                    | Crowe, J.H.  | UC, Davis       | CA  |
|                    | Borochoy, A.   | Hebrew U        |   |
| <b>IS-2707-97R</b> | <b>Molecular Interactions between Herpes and Retroviruses in Dually Infected Chickens and Turkeys</b>                                |                 | Animal Health<br>App. Duration: 3 years               |
| 2534               | Davidson, I.   | Isr. Vet. Inst. |   |
|                    | Kung, H.J.   | Case Western    | OH  |
|                    | Witter, R.L.   | USDA, ARS       | MI  |
| <b>IS-2708-97</b>  | <b>Map Merging and Homology Studies in Cucumis Species</b>   |                 | Field Crops & Hort.<br>App. Duration: 3 years         |
|                    | Katzir, N.   | ARO, Min. Ag.   |   |
|                    | Perl-Treves, R.  | Bar Ilan U      |   |
|                    | Staub, J.E.  | USDA, ARS       | WI  |
|                    | McCreight, J.D.  | USDA, ARS       | CA  |
| <b>IS-2709-97</b>  | <b>Biotechnology of Tomato Volatiles for Flavor Improvement</b>  |                 | Model System & Funct. Biol.<br>App. Duration: 3 years |
|                    | Lewinsohn, E.  | ARO, Min. Ag.   |   |
|                    | Pichersky, E.  | U Michigan      | MI  |
|                    | Gepstein, S.   | Technion        |   |

|   |   |   |
|---|---|---|
| <b>IS-2710-97</b>                                     | <b>The Physiological Bases for Impaired Photosynthetic Performance of Chilling-Sensitive Fruit Trees</b>  | Field Crops & Hort.<br>App. Duration: 3 years         |
|   | Shahak, Y.                      ARO, Min. Ag.<br>Ort, D.R.                      USDA, ARS   | IL  |
| <b>IS-2711-97C</b><br>2346                            | <b>The Role of Defective RNAs in Citrus Tristeza Virus Diseases</b>   | Plant Protection<br>App. Duration: 3 years            |
|   | Bar-Joseph, M.                ARO, Min. Ag.<br>Dawson, W.O.                U Florida<br>Mawassi, M.                 ARO, Min. Ag.<br>Lee, R.F.                      U Florida<br>Karasev, A.V.                U Florida<br>Garnsey, S.M.                USDA, ARS<br>Hilf, M.E.                     USDA, ARS | FL<br>FL<br>FL<br>FL<br>FL<br>FL                      |
| <b>US-2720-97CR</b><br>1894                      2544 | <b>Functional Analysis of Root-Knot Nematode Surface Coat Proteins to Develop Rational Targets for Plantibodies</b>   | Plant Protection<br>App. Duration: 3 years            |
|   | McClure, M.A.                U Arizona<br>Spiegel, Y.                    ARO, Min. Ag.<br>Bird, D.M.                    N Carolina St. U<br>Sharon, E.                    ARO, Min. Ag.   | AZ<br>NC  |
| <b>IS-2726-97</b>                                     | <b>Endoreduplication in Maize Endosperm: An Approach for Increasing Crop Productivity</b>   | Field Crops & Hort.<br>App. Duration: 3 years         |
|   | Grafi, G.                      Weizmann Inst.<br>Larkins, B.                    U Arizona   | AZ  |
| <b>IS-2727-97R</b><br>2553                            | <b>Streptococcus iniae Infections in Trout and Tilapia: Host-Pathogen Interactions, the Immune Response Towards the Pathogen and Vaccine Formulation</b>  | Aquaculture<br>App. Duration: 3 years                 |
|   | Eldar, A.                      Isr. Vet. Inst.<br>Evans, D.L.                    U Georgia  | GA  |
| <b>US-2736-97</b>                                     | <b>An Integrated Approach to Evaluating Inherited Predictors of Resistance to Pulmonary Hypertension Syndrome (Ascites) in Fast Growing Broiler Chickens</b>  | Animal Production<br>App. Duration: 3 years           |
|   | Wideman, R.F.                U Arkansas<br>Anthony, N.B.                U Arkansas<br>Cahaner, A.                    Hebrew U<br>Shlosberg, A.                Isr. Vet. Inst.<br>Bellaiche, M.                Isr. Vet. Inst.<br>Roush, W.B.                    Penn State U                                  | AR<br>AR<br>PA  |
| <b>US-2743-97CR</b><br>2132                      2670 | <b>Regulation of Arabidopsis Glutamate Decarboxylase in Response to Heat Stress: Modulation of Enzyme Activity and Gene Expression</b>  | Model System & Funct. Biol.<br>App. Duration: 3 years |
|   | Locy, R.D.                    Auburn U<br>Fromm, H.                    Weizmann Inst.<br>Cherry, J.H.                 Auburn U<br>Singh, N.K.                    Auburn U   | AL<br>AL<br>AL  |
| <b>US-2746-97</b>                                     | <b>Manipulation of Gene Expression in the Chloroplast: Molecular Genetic Analysis of mRNA Degradation</b>   | Model System & Funct. Biol.<br>App. Duration: 3 years |
|   | Stern, D.B.                    Boyce Thompson<br>Schuster, G.                 Technion  | NY  |

|                     |   |                  |  |
|---------------------|---|------------------|--|
| <b>IS-2747-97</b>   | <b>Control of Fertilization-Independent Development by the FIE2 Gene</b>  |                  | Model System & Funct. Biol.<br>App. Duration: 3 years  |
|                     | Ohad, N.  | Tel Aviv U       |  |
|                     | Fischer, R.L.   | UC, Berkeley     | CA   |
| <b>IS-2758-97R</b>  | <b>The Use of Composted Waste Materials for Enhanced Ca Migration and Exchange in Sodic Soils and Acidic Minespoils</b>                                 |                  | Ag. & the Environment<br>App. Duration: 3 years        |
| 2669                | Avnimelech, Y.  | Technion         |  |
|                     | Stehouwer, R.C.   | Penn State U     | PA   |
|                     | Chorover, J.  | Penn State U     | PA   |
| <b>US-2759-97</b>   | <b>Use of Anti-Fungal Gene Synergisms for Improved Foliar and Fruit Disease Tolerance in Transgenic Grapes</b>  |                  | Field Crops & Hort.<br>App. Duration: 3 years          |
|                     | Reisch, B.I.  | Cornell U        | NY   |
|                     | Kikkert, J.R.   | Cornell U        | NY   |
|                     | Perl, A.  | ARO, Min. Ag.    |  |
|                     | Ben-Arie, R.  | ARO, Min. Ag.    |  |
|                     | Gollop, R.  | ARO, Min. Ag.    |  |
| <b>IS-2760-97</b>   | <b>Genetic Transformation of Flowering Bulb Crops for Virus Resistance</b>  |                  | Plant Protection<br>App. Duration: 3 years             |
|                     | Gera, A.  | ARO, Min. Ag.    |  |
|                     | Watad, A.A.   | ARO, Min. Ag.    |  |
|                     | Zeidan, M.  | ARO, Min. Ag.    |  |
|                     | Hsu, H-T.   | USDA, ARS        | MD   |
|                     | Kamo, K.K.  | USDA, ARS        | MD   |
|                     | Ueng, P.P.  | USDA, ARS        | MD   |
| <b>IS-2762-97</b>   | <b>Farmers' Time Allocation Decisions in Different Institutional Environments: A Household Perspective</b>  |                  | Ag. Economics & Rural Devel.<br>App. Duration: 3 years |
|                     | Kimhi, A.   | Cent Ag Econ Re  |  |
|                     | Chalfant, J.A.  | UC, Davis        | CA   |
|                     | Sumner, D.A.  | UC, Davis        | CA   |
| <b>IS-2767-97</b>   | <b>Prediction of Nitrogen Stress Using Reflectance Techniques</b>   |                  | Bioengineering & Sensors<br>App. Duration: 3 years     |
|                     | Alchanatis, V.  | ARO, Min. Ag.    |  |
|                     | Searcy, S.W.  | Texas A&M        | TX   |
|                     | Meron, M.   | MIGAL R&D        |  |
| <b>IS-2769-97CR</b> | <b>The GH-IGF Axis in Sparus aurata: Possible Applications to Genetic Selection</b>   |                  | Aquaculture<br>App. Duration: 3 years                  |
| 1973                | Funkenstein, B.   | Isr. Ocean. Res. |  |
| 2570                | Duan, C.  | U Michigan       | MI   |
| <b>IS-2775-97R</b>  | <b>Morphogenesis and Light Signal Transduction in Plants: The p71 Subunit of the COP9-Complex and its Possible Role in Regulating Nuclear Transport</b> |                  | Model System & Funct. Biol.<br>App. Duration: 3 years  |
| 2548                | Chaimovitz, A.D.  | Tel Aviv U       |  |
|                     | Deng, X-W   | Yale             | CT   |
| <b>US-2781-97</b>   | <b>Characterization of B. Melinensis REV 1 Attenuated Mutants</b>   |                  | Animal Health<br>App. Duration: 3 years                |
|                     | Ficht, T.A.   | Texas A&M        | TX   |
|                     | Splitter, G.A.  | U Wisconsin      | WI   |
|                     | Banai, M.   | Isr. Vet. Inst.  |  |
|                     | Davidson, M.  | Isr. Vet. Inst.  |  |

|                                  |   |   |
|----------------------------------|---|---|
| <b>US-2783-97</b>                | <b>Molecular-Based Analysis of Cellulose Binding Proteins Involved with Adherence to Cellulose by Ruminococcus albus</b>                      | Animal Production<br>App. Duration: 3 years     |
|                                  | Morrison, M. Ohio St. U<br>Miron, J. ARO, Min. Ag.  | OH  |
| <b>US-2786-97R</b><br>2663       | <b>Controlling Ethylene Responses in Horticultural Crops at the Receptor Level</b>  | Field Crops & Hort.<br>App. Duration: 3 years   |
|                                  | Sisler, E.C. N Carolina St. U<br>Goren, R. Hebrew U<br>Apelbaum, A. Hebrew U  | NC  |
| <b>IS-2793-97</b>                | <b>Interactions of Cloud Proteins, Pectins and Pectinesterases in Flocculation of Citrus Cloud</b>  | Postharvest<br>App. Duration: 3 years           |
|                                  | Shomer, I. ARO, Min. Ag.<br>Wicker, L. U Georgia<br>Merin, U. ARO, Min. Ag.<br>Kerr, W.L. U Georgia   | GA<br>GA  |
| <b>US-2794-97</b>                | <b>Characterization of Post-Tillage Soil Fragmentation and Rejoining Affecting Soil Pore Space Evolution and Transport Properties</b>         | Ag. & the Environment<br>App. Duration: 3 years |
|                                  | Snyder, V.A. U Puerto Rico<br>Or, D. Utah St U<br>Hadas, A. ARO, Min. Ag.   | PR<br>UT  |
| <b>US-2799-97C</b><br>2238       | <b>Control of Bovine Anaplasmosis: Cytokine Enhancement of Vaccine Efficacy</b>   | Animal Health<br>App. Duration: 3 years         |
|                                  | Palmer, G.H. WA State U<br>Shkap, V. Isr. Vet. Inst.<br>Brown, W.C. WA State U<br>Knowles, Jr., D. P. USDA, ARS<br>Pipano, E. Isr. Vet. Inst. | WA<br>WA<br>WA                                  |
| <b>US-2805-97</b>                | <b>Improving Methionine Content in Transgenic Forage Legumes</b>  | Field Crops & Hort.<br>App. Duration: 3 years   |
|                                  | Sengupta-Gopalan, C. N Mexico St. U<br>Galili, S. ARO, Min. Ag.<br>Amir, R. MIGAL R&D   | NM  |
| <b>IS-2806-97CR</b><br>2162 2481 | <b>Molecular Tagging of Drought Resistance in Wheat: Osmotic Adjustment and Plant Productivity</b>  | Field Crops & Hort.<br>App. Duration: 3 years   |
|                                  | Blum, A. ARO, Min. Ag.<br>Nguyen, H.T. Texas Tech   | TX  |
| <b>US-2809-97R</b><br>2593       | <b>Interploid Hybridization of Cucumis melo and C. metuliferus</b>  | Field Crops & Hort.<br>App. Duration: 2 years   |
|                                  | Adelberg, J. Clemson U<br>Skorupska, H. Clemson U<br>Rhodes, W.B. Clemson U<br>Cohen, Y. Bar Ilan U<br>Perl-Treves, R. Bar Ilan U             | SC<br>SC<br>SC                                  |
| <b>US-2814-97</b>                | <b>Regulation of Early Events in Hyphal Elongation, Branching and Differentiation of Filamentous Fungi</b>                                    | Plant Protection<br>App. Duration: 3 years      |
|                                  | Dickman, M.B. U Nebraska<br>Yarden, O. Hebrew U   | NE  |

|                    |  |   |
|--------------------|--|---|
| <b>US-2816-97</b>  | <b>The Role of Proteins Secreted by the Hrp-Pathways of <i>Erwinia stewartii</i> and <i>E. herbicola</i> pv. <i>gypsophilae</i> in Eliciting Water-Soaking Symptoms and Initiating Galls</b> | Plant Protection<br>App. Duration: 3 years      |
|                    | Coplin, D.L. Ohio St. U<br>Barash, I. Tel Aviv U<br>Manulis, S. ARO, Min. Ag.  | OH  |
| <b>IS-2824-98R</b> | <b>Thermotolerance Acquisition in Broiler Chickens by Temperature Conditioning Early in Life</b>   | Animal Production<br>App. Duration: 3 years     |
| 2678               | Yahav, S. ARO, Min. Ag.<br>McMurtry, J.P. USDA, ARS<br>Plavnik, I. ARO, Min. Ag.   | MD  |
| <b>IS-2825-98</b>  | <b>Epidemiology and Etiology of <i>Colletotrichum</i> Species Causing Strawberry Diseases</b>  | Plant Protection<br>App. Duration: 3 years      |
|                    | Freeman, S. ARO, Min. Ag.<br>Legard, D.E. U Florida  | FL  |
| <b>IS-2835-98R</b> | <b>Modifying Solar Radiation to Increase Water Use Efficiency, Yield and Fruit Quality in Citrus</b>   | Ag. & the Environment<br>App. Duration: 3 years |
| 2690               | Cohen, S. ARO, Min. Ag.<br>Moreshet, S. ARO, Min. Ag.<br>Goldschmidt, E.E. Hebrew U<br>Syvertsen, J.P. U Florida   | FL  |
| <b>IS-2837-98</b>  | <b>Manipulation of GA Levels and GA Signal Transduction in Anthers to Generate Male Sterility</b>  | Field Crops & Hort.<br>App. Duration: 3 years   |
|                    | Weiss, D. Hebrew U<br>Borochoy, A. Hebrew U<br>Olszewski, N.E. U Minnesota   | MN  |
| <b>IS-2839-98</b>  | <b>Geometrical Considerations and Interfacial Processes Affecting Electromagnetic Measurement of Soil Water Content by TDR and Remote Sensing Methods</b>                                    | Ag. & the Environment<br>App. Duration: 3 years |
|                    | Friedman, S.P. ARO, Min. Ag.<br>Wraith, J.M. Montana St. U<br>Or, D. Utah St U   | MT<br>UT  |
| <b>US-2846-98</b>  | <b>Temperature Stress and Turkey Reproduction</b>  | Animal Production<br>App. Duration: 3 years     |
|                    | El Halawani, M.E U Minnesota<br>Rozenboim, I. Hebrew U   | MN  |
| <b>IS-2851-98R</b> | <b>Study and Manipulation of the Flavanoid Biosynthetic Pathway in Citrus for Flavor Engineering and Seedless Fruit</b>  | Field Crops & Hort.<br>App. Duration: 3 years   |
| 2810               | Eyal, Y. ARO, Min. Ag.<br>Moore, G.A. U Florida<br>Lewinsohn, E. ARO, Min. Ag.   | FL  |
| <b>US-2855-98</b>  | <b>Parasitoid Movement between Habitats and Biological Control of Aphid Pests</b>  | Plant Protection<br>App. Duration: 3 years      |
|                    | Hopper, K.R. USDA, ARS<br>Coll, M. Hebrew U  | DE  |

|                    |   |               |                             |
|--------------------|---|---------------|-----------------------------|
| <b>US-2858-98R</b> | <b>A Molecular Approach for Improving the Stability of Insecticidal Nematodes</b>   |               | Plant Protection            |
| 2753               |   |               | App. Duration: 3 years      |
|                    | Gaugler, R.   | Rutgers       | NJ                          |
|                    | Glazer, I.  | ARO, Min. Ag. |                             |
|                    | Segal, D.   | Tel Aviv U    |                             |
|                    | Hashmi, S.  | Rutgers       | NJ                          |
| <b>IS-2859-98</b>  | <b>Characterization of Preferential Flow in Spatially Variable Unsaturated Field Soils</b>  |               | Ag. & the Environment       |
|                    |   |               | App. Duration: 3 years      |
|                    | Russo, D.   | ARO, Min. Ag. |                             |
|                    | Jury, W.A.  | UC, Riverside | CA                          |
| <b>US-2870-98</b>  | <b>Suppression of Potyvirus Infection by a Closterovirus Protein</b>  |               | Plant Protection            |
|                    |   |               | App. Duration: 3 years      |
|                    | Dolja, V.V.   | Oregon St. U  | OR                          |
|                    | Gal-On, A.  | ARO, Min. Ag. |                             |
|                    | Gaba, V.P.  | ARO, Min. Ag. |                             |
| <b>US-2874-98R</b> | <b>Discovery and Transfer of Genes from Wild Zea Germplasm to Improve Grain Oil and Protein Composition of Temperate Maize</b>  |               | Field Crops & Hort.         |
| 2748               |   |               | App. Duration: 3 years      |
|                    | Smith, M.E.   | Cornell U     | NY                          |
|                    | Katzir, N.  | ARO, Min. Ag. |                             |
|                    | McCouch, S.   | Cornell U     | NY                          |
|                    | Tadmor, Y.  | ARO, Min. Ag. |                             |
| <b>US-2880-98C</b> | <b>Enhancing Crop Yield through Colonization of the Rhizosphere with Beneficial Microbes</b>  |               | Field Crops & Hort.         |
| 2325               |   |               | App. Duration: 3 years      |
|                    | Harman, G.E.  | Cornell U     | NY                          |
|                    | Chet, I.  | Hebrew U      |                             |
| <b>IS-2887-98R</b> | <b>Estimation of Energy Expenditure of Free Living and Growing Domesticated Ruminants by Heart Rate Measurement</b>   |               | Animal Production           |
| 2730               |   |               | App. Duration: 3 years      |
|                    | Brosh, A.   | ARO, Min. Ag. |                             |
|                    | Robertshaw, D.  | Cornell U     | NY                          |
|                    | Aharoni, Y.   | ARO, Min. Ag. |                             |
|                    | Holzer, Z.  | ARO, Min. Ag. |                             |
|                    | Gutman, M.  | ARO, Min. Ag. |                             |
|                    | Arieli, A.  | Hebrew U      |                             |
| <b>IS-2894-98</b>  | <b>Regulation of Senescence by Sugar Metabolism</b>   |               | Model System & Funct. Biol. |
|                    |   |               | App. Duration: 3 years      |
|                    | Granot, D.  | ARO, Min. Ag. |                             |
|                    | Amasino, R.M.   | U Wisconsin   | WI                          |
| <b>IS-2901-98C</b> | <b>Interacting Domains of Anti-Insect Scorpion Toxins and their Sodium Channel Binding Sites: Structure, Cooperative Interactions with Agrochemicals, and Application</b> |               | Plant Protection            |
| 2486               |   |               | App. Duration: 3 years      |
|                    | Gurevitz, M.  | Tel Aviv U    |                             |
|                    | Adams, M.E.   | UC, Riverside | CA                          |

|                            |   |   |
|----------------------------|---|---|
| <b>US-2912-98C</b><br>2495 | <b>Tospoviruses Infecting Bulb Crops: Evolution, Diversity, Vector Specificity and Control</b>                              | Plant Protection<br>App. Duration: 3 years            |
|                            | Ullman, D.E. UC, Davis CA   |   |
|                            | Moyer, J.W. N Carolina St. U NC   |   |
|                            | Raccach, B. ARO, Min. Ag.   |   |
|                            | Gera, A. ARO, Min. Ag.  |   |
|                            | Klein, M. ARO, Min. Ag.   |   |
|                            | Cohen, J. ARO, Min. Ag.   |   |
| <b>US-2913-98</b>          | <b>Vaccine Development for Bovine Neosporosis: Identification of T-Cell Antigens</b>  | Animal Health<br>App. Duration: 3 years               |
|                            | Baszler, T.V. WA State U WA   |   |
|                            | Pipano, E. Isr. Vet. Inst.  |   |
|                            | Brown, W.C. WA State U WA   |   |
|                            | Palmer, G.H. WA State U WA  |   |
|                            | Shkap, V. Isr. Vet. Inst.   |   |
|                            | Perl, S.A. Isr. Vet. Inst.  |   |
| <b>US-2914-98</b>          | <b>Characterization of Unidentified Potent Flavor Changes during Processing and Storage of Orange and Grapefruit Juices</b> | Postharvest<br>App. Duration: 3 years                 |
|                            | Rousseff, R.L. U Florida FL   |   |
|                            | Naim, M. Hebrew U   |   |
| <b>US-2921-98R</b><br>2784 | <b>Management Strategies to Maximize Skeletal Growth Rate in Dairy Heifers</b>  | Animal Production<br>App. Duration: 3 years           |
|                            | Erdman, R.A. U Maryland MD  |   |
|                            | Dahl, G.E. U Maryland MD  |   |
|                            | Barash, H. ARO, Min. Ag.  |   |
|                            | Bruckental, I. ARO, Min. Ag.  |   |
|                            | Shamay, A. ARO, Min. Ag.  |   |
|                            | Capuco, A.V. USDA, ARS MD   |   |
| <b>US-2926-98</b>          | <b>Enhancement of Essential Amino Acids in Cereal Seeds: Four Approaches to Increased Lysine Content</b>                    | Field Crops & Hort.<br>App. Duration: 3 years         |
|                            | Anderson, O.D. USDA, ARS CA   |   |
|                            | Galili, G. Weizmann Inst.   |   |
|                            | Blechl, A.E. USDA, ARS CA   |   |
| <b>US-2944-98</b>          | <b>The Role of the Newly Identified Stunting Syndrome Virus in the Enteric Disease Complex of Turkeys</b>                   | Animal Health<br>App. Duration: 1 year                |
|                            | Reynolds, D.L. Iowa St. U IA  |   |
|                            | Weisman, Y. Isr. Vet. Inst.   |   |
|                            | Moon, H.W. Iowa St. U IA  |   |
|                            | Sell, J.L. Iowa St. U IA  |   |
|                            | Malkinson, M. Isr. Vet. Inst.   |   |
| <b>US-2945-98</b>          | <b>Precision Cropping by Remotely Sensed Prorotype Plots and Calibration in the Complex Domain</b>                          | Bioengineering & Sensors<br>App. Duration: 3 years    |
|                            | Anderson, G. L. USDA, ARS TX  |   |
|                            | Peleg, K. Technion  |   |
| <b>US-2948-98</b>          | <b>Nonhomologous DNA End-Joining in Plants: Genes and Mechanisms</b>  | Model System & Funct. Biol.<br>App. Duration: 3 years |
|                            | Weil, C. F. U Idaho ID  |   |
|                            | Britt, A. UC, Davis CA  |   |
|                            | Levy, A.A. Weizmann Inst.   |   |

|   |   |   |
|---|---|---|
| <b>IS-2949-98R</b><br>2761                            | <b>Physiological Regulation of Root System Architecture:<br/>The Role of Ethylene and Phosphorus</b><br>Eshel, A.                      Tel Aviv U<br>Lynch, J.                      Penn State U<br>Brown, K.                      Penn State U   | Field Crops & Hort.<br>App. Duration: 3 years<br><br>PA<br>PA         |
| <b>US-2954-98</b>                                     | <b>Developmental and Evaluation of Advanced Expression<br/>Vectors with Both Enhanced Integration and Stable<br/>Expression for Transgenic Farmed Fish</b><br>Liu, J.Z.                      Auburn U<br>Dunham, A.                      Auburn U<br>Moav, B.                      Tel Aviv U | Aquaculture<br>App. Duration: 3 years<br><br>AL<br>AL                 |
| <b>US-2960-98</b>                                     | <b>Pectin Cross-Linking Dynamics and Wall Softening<br/>during Fruit Ripening</b><br>Carpita, N.C.                      Purdue<br>Ben-Arie, R.                      ARO, Min. Ag.<br>Lers, A.                      ARO, Min. Ag.  | Postharvest<br>App. Duration: 3 years<br><br>IN                       |
| <b>US-2962-98</b>                                     | <b>Cryopreservation of Penaeid Shrimp Embryos:<br/>Development of a Germplasm Cryo-Bank for<br/>Preservation of High Health and Genetically Improved<br/>Stocks</b><br>Browdy, C.L.                      SC Natr'l Res.<br>Lubzens, E.                      Isr. Ocean. Res.                  | Aquaculture<br>App. Duration: 3 years<br><br>SC                       |
| <b>US-2964-98</b>                                     | <b>Molecular Genetic Analysis of Flowering in Arabidopsis<br/>and Tomato</b><br>Wagner, D.R.                      U Oregon<br>Lifschitz, E.                      Technion<br>Kay, S.A.                      Scripps Researc   | Model System & Funct. Biol.<br>App. Duration: 3 years<br><br>OR<br>CA |
| <b>US-2968-99C</b><br>2138                            | <b>Attenuated Brucella melitensis Rough Rev 1 Vaccine</b><br>Splitter, G.A.                      U Wisconsin<br>Banai, M.                      Isr. Vet. Inst.  | Animal Health<br>App. Duration: 3 years<br><br>WI                     |
| <b>US-2969-99CR</b><br>2247                      2841 | <b>Viral and Host Cell Determinants of Nuclear Import and<br/>Export of the Tomato Yellow Leaf Curl Virus in Tomato<br/>Plants</b><br>Citovsky, V.                      NYSU, Stony Brook<br>Gafni, Y.                      ARO, Min. Ag.   | Model System & Funct. Biol.<br>App. Duration: 3 years<br><br>NY       |
| <b>IS-2971-99</b>                                     | <b>Genes Controlling Calcium-Enhanced Tolerance to<br/>Salinity in Plants</b><br>Danon, A.                      Weizmann Inst.<br>Zhu, J.K.                      U Arizona  | Model System & Funct. Biol.<br>App. Duration: 3 years<br><br>AZ       |
| <b>IS-2972-99</b>                                     | <b>Identification of Citrus Fruit-Specific and<br/>Pathogen-Induced Promoters and Their Use in<br/>Molecular Engineering</b><br>Porat, R.                      ARO, Min. Ag.<br>Holland, D.                      ARO, Min. Ag.<br>Walling, L.L.                      UC, Riverside            | Field Crops & Hort.<br>App. Duration: 1 year<br><br>CA                |

|                    |  |   |
|--------------------|--|---|
| <b>IS-2978-99R</b> | <b>Isolation, Purification and Sequence Determination of<br/>Pheromonotropic-Receptors</b>   | Plant Protection<br>App. Duration: 3 years    |
| 2963               | Rafaeli, A. ARO, Min. Ag.<br>Jurenka, R.A. Iowa St. U<br>Segal, D. Tel Aviv U  | IA  |
| <b>IS-2979-99</b>  | <b>Expression of E.T.E.C. Enterotoxin in Tomato Fruit and<br/>Development of a Prototype Transgenic Tomato for<br/>Dissemination as an Oral Vaccine in Developing<br/>Countries</b>          | Field Crops & Hort.<br>App. Duration: 3 years |
|                    | Friedmann, M. ARO, Min. Ag.<br>Arntzen, C.J. Boyce Thompson<br>Mason, H. S. Boyce Thompson   | NY<br>NY                                      |
| <b>IS-2980-99</b>  | <b>Identification of Impact Aroma Compounds in Tomato:<br/>Implications to New Hybrids with Improved Acceptance<br/>through Sensory, Chemical, Breeding and Agrotechnical<br/>Techniques</b> | Field Crops & Hort.<br>App. Duration: 3 years |
|                    | Naim, M. Hebrew U<br>Takeoka, G.R. USDA, ARS<br>Rabinowitch, H.D. Hebrew U<br>Buttery, R.G. USDA, ARS  | CA<br>CA                                      |
| <b>IS-2982-99C</b> | <b>The LX Senescence-Induced Ribonuclease in Tomato:<br/>Function and Regulation</b>   | Field Crops & Hort.<br>App. Duration: 3 years |
| 2399               | Lers, A. ARO, Min. Ag.<br>Keegstra, K. Michigan St. U<br>Green, P.J. Michigan St. U  | MI<br>MI                                      |
| <b>US-2996-99</b>  | <b>Vector Specificity in Potyvirus Transmission: Role of the<br/>Helper Component</b>  | Plant Protection<br>App. Duration: 3 years    |
|                    | Pirone, T.P. U Kentucky<br>Raccah, B. ARO, Min. Ag.<br>Chejanovsky, N. ARO, Min. Ag.   | KY  |
| <b>IS-2999-99</b>  | <b>Isolation of Baculoviruses with Expanded Spectrum of<br/>Action against Lepidopteran Pests</b>  | Plant Protection<br>App. Duration: 3 years    |
|                    | Chejanovsky, N. ARO, Min. Ag.<br>Thiem, S.M. Michigan St. U  | MI  |
| <b>IS-3000-99R</b> | <b>Regulation of LH Secretion in the Perioovulatory Period<br/>as a Strategy to Enhance Ovarian Function and Fertility<br/>in Dairy and Beef Cows</b>  | Animal Production<br>App. Duration: 3 years   |
| 2898               | Wolfenson, D. Hebrew U<br>Thatcher, W.W. U Florida<br>Meidan, R. Hebrew U<br>Kinder, J. E. Ohio St. U  | FL<br>OH                                      |
| <b>IS-3008-99</b>  | <b>The Epidemiology of Avian Leukosis Virus-subtype J<br/>Infection in Broiler Breeder Flocks of Poultry and its<br/>Eradication from Pedigree Breeding Stock</b>                            | Animal Health<br>App. Duration: 3 years       |
|                    | Malkinson, M. Isr. Vet. Inst.<br>Davidson, I. Isr. Vet. Inst.<br>Kotler, M. Hebrew U<br>Witter, R.L. USDA, ARS   | MI  |

|                                  |   |   |
|----------------------------------|---|---|
| <b>IS-3009-99C</b><br>2427       | <b>Fine Mapping and Genetic Interactions of Nearly-Isogenic Allelic Series Representing Yield and Quality Qtls Derived from Wild Tomato Species</b> | Field Crops & Hort.<br>App. Duration: 3 years         |
|                                  | Zamir, D. Hebrew U<br>Tanksley, S.D. Cornell U  | NY  |
| <b>IS-3021-99CR</b><br>2317 2934 | <b>Molecular Genetic Dissection of Complex Immunocompetence Traits in Broilers</b>  | Animal Production<br>App. Duration: 3 years           |
|                                  | Cahaner, A. Hebrew U<br>Lamont, S.J. Iowa St. U<br>Heller, E.D. Hebrew U<br>Hillel, J. Hebrew U   | IA  |
| <b>IS-3022-99</b>                | <b>Fast Analysis of Pesticide Residues in Agricultural Products</b>   | Postharvest<br>App. Duration: 3 years                 |
|                                  | Amirav, A. Tel Aviv U<br>Lehotay, S.J. USDA, ARS  | MD  |
| <b>IS-3024-99</b>                | <b>The Use of Bee-Borne Attractants for Pollination of Nonrewarding Flowers: Model System of Male-Sterile Tomato Flowers</b>                        | Plant Protection<br>App. Duration: 3 years            |
|                                  | Hefetz, A. Tel Aviv U<br>Schmidt, J.O. USDA, ARS<br>Buchmann, S.L. USDA, ARS  | AZ<br>AZ  |
| <b>US-3030-99</b>                | <b>Importance of Endobiotics in Defense against Protozoan Ectoparasites of Fish</b>   | Aquaculture<br>App. Duration: 3 years                 |
|                                  | Noga, E.J. N Carolina St. U<br>Colorni, A. Isr. Ocean. Res.<br>Levy, M.G. N Carolina St. U<br>Avtalion, R.R. Bar Ilan U                             | NC<br>NC  |
| <b>US-3033-99</b>                | <b>The Role of Proteases in Regulating Gene Expression and Assembly Processes in the Chloroplast</b>  | Model System & Funct. Biol.<br>App. Duration: 3 years |
|                                  | Barkan, A. U Oregon<br>Adam, Z. Hebrew U  | OR  |
| <b>US-3034-99R</b><br>2951       | <b>Genomics Tools for Legume Agronomic Gene Mapping and Cloning, and Genome Analysis: Chickpea as a Model</b>                                       | Field Crops & Hort.<br>App. Duration: 3 years         |
|                                  | Zhang, H. Texas A&M<br>Bonfil, D.J. ARO, Min. Ag.<br>Abbo, S. Hebrew U  | TX  |
| <b>US-3038-99R</b><br>2881       | <b>Regulation and Action of Leptin in Pregnant and Lactating Dairy Cows.</b>  | Animal Production<br>App. Duration: 1 year            |
|                                  | Boisclair, Y. R. Cornell U<br>Bell, A. W. Cornell U<br>Shamay, A. ARO, Min. Ag.   | NY<br>NY  |
| <b>US-3039-99</b>                | <b>Redox Climate in Quiescence and Pathogenicity of Postharvest Fungal Pathogens</b>  | Postharvest<br>App. Duration: 3 years                 |
|                                  | Bostock, R.M. UC, Davis<br>Prusky, D.B. ARO, Min. Ag.<br>Dickman, M.B. U Nebraska   | CA<br>NE  |

|                                  |   |  |          |  |
|----------------------------------|---|--|----------|--|
| <b>IS-3048-99</b>                | <b>A Novel Approach to Parasitic Weed Control Based on Inducible Expression of Cecropin in Transgenic Plants</b><br>Aly, R.<br>Westwood, J.H.<br>Cramer, C.L.   | ARO, Min. Ag.<br>Virginia Polytech<br>Virginia Polytech        | VA<br>VA | Plant Protection<br>App. Duration: 3 years             |
| <b>US-3065-99R</b><br>2942       | <b>Modeling Plant Response to Deficit Irrigation with Saline Water: Separating the Effects of Water and Salt Stress in the Root Uptake Function</b><br>Dudley, L.M.<br>Shani, U.<br>Shenker, M.                                       | Utah St U<br>Hebrew U<br>Hebrew U                              | UT       | Ag. & the Environment<br>App. Duration: 3 years        |
| <b>US-3067-99</b>                | <b>The Economics of Marketing and Diffusion of Agricultural Inputs</b><br>Zilberman, D.<br>Heiman, A.   | UC, Berkeley<br>Hebrew U                                       | CA       | Ag. Economics & Rural Devel.<br>App. Duration: 3 years |
| <b>US-3068-99</b>                | <b>Identification of Avian Infectious Brochitis Virus Variant Serotypes and Subtypes by PCR Product Cycle Sequencing for the Rational Selection of Effective Vaccines</b><br>Gelb, Jr., J.<br>Weisman, Y.<br>Ladman, B.S.<br>Meir, R. | U Delaware<br>Isr. Vet. Inst.<br>U Delaware<br>Isr. Vet. Inst. | DE<br>DE | Animal Health<br>App. Duration: 3 years                |
| <b>IS-3093-00</b>                | <b>Enhancement of Meat Production by Monochromatic Light Stimuli During Embryogenesis: Effect on Muscle Development &amp; Post-Hatch Growth</b><br>Halevy, O.<br>Reuveni, Z.<br>Rozenboim, I.   | Hebrew U<br>U Washington<br>Hebrew U                           | WA       | Animal Production<br>App. Duration: 3 years            |
| <b>US-3094-00CR</b><br>2232 2970 | <b>Phosphorylative Transduction of Developmental and Pathogenicity-Related Cues in Sclerotinia Sclerotiorum</b><br>Dickman, M.B.<br>Yarden, O.  | U Nebraska<br>Hebrew U   | NE       | Plant Protection<br>App. Duration: 3 years             |
| <b>IS-3103-00CR</b><br>2383 2984 | <b>Determination of Allele Frequencies for Quantitative Trait Loci in Commercial Animal Populations</b><br>Weller, J.I.<br>Ron, M.<br>Lewin, H.A.   | ARO, Min. Ag.<br>ARO, Min. Ag.<br>U Illinois                   | IL       | Animal Production<br>App. Duration: 3 years            |
| <b>IS-3105-00</b>                | <b>Translational Mechanisms that Govern Milk Protein Levels and Composition</b><br>Barash, I.<br>Rhoads, R.E.   | ARO, Min. Ag.<br>LSU Health Sciences Center                    | LA       | Animal Production<br>App. Duration: 3 years            |
| <b>US-3106-00C</b><br>2783       | <b>Molecular Analysis of Cellulosome Organization in Ruminococcus Albus and Fibrobacter Intestinalis for Optimization of Fiber Digestibility in Ruminants</b><br>Morrison, M.<br>Miron, J.<br>Bayer, E.A.                             | Ohio St. U<br>ARO, Min. Ag.<br>Weizmann Inst.                  | OH       | Animal Production<br>App. Duration: 3 years            |

|                                  |  |   |
|----------------------------------|--|---|
| <b>US-3108-00</b>                | <b>Microbial Communities Active in Soil-Induced Systemic Plant Disease Resistance</b>  | Plant Protection<br>App. Duration: 3 years      |
|                                  | Michel Jr., F.C. Ohio St. U OH   |   |
|                                  | Hoitink, H.A.J. Ohio St. U OH  |   |
|                                  | Hadar, Y. Hebrew U   |   |
|                                  | Minz, D. ARO, Min. Ag.   |   |
| <b>IS-3109-00</b>                | <b>The Rugose Wood Disease of Grapevine, Etiology and Virus Resistance in Transgenic Vines</b>   | Plant Protection<br>App. Duration: 3 years      |
|                                  | Mawassi, M. ARO, Min. Ag.  |   |
|                                  | Rowhani, A. UC, Davis CA   |   |
|                                  | Golino, D.A. UC, Davis CA  |   |
|                                  | Perl, A. ARO, Min. Ag.   |   |
|                                  | Tanne, E. ARO, Min. Ag.  |   |
|                                  | Gafny, R. ARO, Min. Ag.  |   |
| <b>IS-3110-00CR</b><br>2664 3077 | <b>Breed Improvement of Tilapia: Selective Breeding for Cold Tolerance and for Growth Rate in Fresh and Saline Water</b>   | Aquaculture<br>App. Duration: 3 years           |
|                                  | Hulata, G. ARO, Min. Ag.   |   |
|                                  | Gall, G.A.E. UC, Davis CA  |   |
| <b>IS-3111-00</b>                | <b>Developing Remote Sensing Based-Techniques for the Evaluation of Soil Infiltration Rate and Surface Roughness</b>   | Ag. & the Environment<br>App. Duration: 1 year  |
|                                  | Agassi, M.A. Isr. Min. Agr.  |   |
|                                  | Singer, J UC, Davis CA   |   |
|                                  | Ben-Dor, E. Tel Aviv U   |   |
|                                  | Goldshleger, N. Isr. Min. Agr.   |   |
|                                  | Rundquist, D.C. U Nebraska NE  |   |
|                                  | Blumberg, D. G. Ben Gurion U   |   |
|                                  | Benyamini, Y. Isr. Min. Agr.   |   |
| <b>IS-3115-00</b>                | <b>The Development of Sodium Alginate Encapsulation of Diatom Concentrates as a Nutrient Delivery System to Enhance Growth and Survival of Post-Larvae Abalone</b> | Aquaculture<br>App. Duration: 1 year            |
|                                  | Shpigel, M. Isr. Ocean. Res.   |   |
|                                  | Place, A.R. U Maryland MD  |   |
|                                  | Koven, W. Isr. Ocean. Res.   |   |
|                                  | Zmora, O. Isr. Ocean. Res.   |   |
|                                  | Harpaz, S. ARO, Min. Ag.   |   |
|                                  | Harel, M. UMD Marine BioTech MD  |   |
| <b>IS-3117-00R</b><br>3004       | <b>Enhancement of Postharvest Biocontrol Activity of the Yeast <i>Candida oleophila</i> by Overexpression of Lytic Enzymes</b>                                     | Postharvest<br>App. Duration: 3 years           |
|                                  | Droby, S. ARO, Min. Ag.  |   |
|                                  | Goldway, M. MIGAL R&D  |   |
|                                  | Wisniewski, M.E. USDA, ARS WV  |   |
|                                  | Janisiewicz, W.J. USDA, ARS WV   |   |
|                                  | Wilson, C.L. USDA, ARS WV  |   |
| <b>IS-3120-00R</b><br>3057       | <b>The Role of Binding to the Root Surface and Electrostatic Attraction in the Uptake of Heavy Metal by Plants</b>   | Ag. & the Environment<br>App. Duration: 3 years |
|                                  | Yermiyahu, U ARO, Min. Ag.   |   |
|                                  | Kinraide, T.B. USDA, ARS WV  |   |
|                                  | Mingelgrin, U. ARO, Min. Ag.   |   |

|                            |  |                 |   |
|----------------------------|--|-----------------|---|
| <b>IS-3123-00C</b><br>2775 | <b>Developmental Regulation and Light Signal Transduction in Plants: The Fus5 Subunit of the Cop9 Signalosome</b>  |                 | Model System & Funct. Biol.<br>App. Duration: 3 years |
|                            | Chaimovitz, A.D.   | Tel Aviv U      |   |
|                            | Deng, X-W  | Yale            | CT  |
| <b>IS-3126-00</b>          | <b>Targeted Molecular Typing of Pathogenic Avian Mycoplasmas</b>   |                 | Animal Health<br>App. Duration: 3 years               |
|                            | Levisohn, S.   | Isr. Vet. Inst. |   |
|                            | Garcia, M.   | U Georgia       | GA  |
|                            | Yogev, D.  | Hebrew U        |   |
|                            | Kleven, S.H.   | U Georgia       | GA  |
| <b>US-3132-00</b>          | <b>Enhancing Quality Attributes of Potato and Tomato by Modifying and Controlling their Oxidative Stress Outcome</b>   |                 | Field Crops & Hort.<br>App. Duration: 3 years         |
|                            | Handa, A.K.  | Purdue          | IN  |
|                            | Eshdat, Y.   | ARO, Min. Ag.   |   |
|                            | Perl, A.   | ARO, Min. Ag.   |   |
|                            | Watkins, B.A.  | Purdue          | IN  |
|                            | Holland, D.  | ARO, Min. Ag.   |   |
|                            | Levy, D.   | ARO, Min. Ag.   |   |
| <b>IS-3133-00C</b><br>2434 | <b>Inhibition of the Gravitropic Shoot Bending in Stored Cut Flowers Through Control of Their Gravid Perception: Involvement of the Cytoskeleton and Cytosolic Calcium</b> |                 | Postharvest<br>App. Duration: 3 years                 |
|                            | Philosoph-Hadas, S.  | ARO, Min. Ag.   |   |
|                            | Kaufman, P.B.  | U Michigan      | MI  |
|                            | Meir, S.   | ARO, Min. Ag.   |   |
|                            | Halevy, A.H.   | Hebrew U        |   |
| <b>IS-3134-00R</b><br>3003 | <b>Roles of Endothelin 1 and Tumor Necrosis Factor-A in Determining Responsiveness of the Bovine Corpus Luteum to Prostaglandin F2a</b>                                    |                 | Animal Production<br>App. Duration: 3 years           |
|                            | Meidan, R.   | Hebrew U        |   |
|                            | Pate, J.L.   | Ohio St. U      | OH  |
| <b>US-3135-00</b>          | <b>Plant Adaptation to Light Stress: Genetic Regulatory Mechanisms</b>   |                 | Model System & Funct. Biol.<br>App. Duration: 3 years |
|                            | Christopher, D.A.  | U Hawaii        | HI  |
|                            | Danon, A.  | Weizmann Inst.  |   |
| <b>IS-3137-00</b>          | <b>Male Song as a Tool for Trapping Female Fruit Flies</b>   |                 | Bioengineering & Sensors<br>App. Duration: 1 year     |
|                            | Mizrach, A.  | ARO, Min. Ag.   |   |
|                            | Mazor, M.  | ARO, Min. Ag.   |   |
|                            | Hetzroni, A.   | ARO, Min. Ag.   |   |
|                            | Grinshpun, J.  | ARO, Min. Ag.   |   |
|                            | Mankin, R.   | USDA, ARS       | FL  |
|                            | Shuman, D.   | USDA, ARS       | FL  |
|                            | Epsky, N.D.  | USDA, ARS       | FL  |
|                            | Heath, R.R.  | USDA, ARS       | FL  |
| <b>IS-3139-00</b>          | <b>Ethylene Mediated Regulation of Sex Expression in Cucumis</b>   |                 | Field Crops & Hort.<br>App. Duration: 3 years         |
|                            | Perl-Treves, R.  | Bar Ilan U      |   |
|                            | Grumet, R.   | Michigan St. U  | MI  |
|                            | Katzir, N.   | ARO, Min. Ag.   |   |
|                            | Staub, J.E.  | USDA, ARS       | WI  |

|                            |   |                 |                             |
|----------------------------|---|-----------------|-----------------------------|
| <b>US-3155-00</b>          | <b>Development of A Real-Time, In-Situ Nitrate Sensor</b>   |                 | Bioengineering & Sensors    |
|                            |   |                 | App. Duration: 1 year       |
|                            | Upadhyaya, S.K.   | UC, Davis       | CA                          |
|                            | Shaviv, A.G.  | Technion        |                             |
|                            | Katzir, A.  | Tel Aviv U      |                             |
|                            | Shmulevich, I.E.  | Technion        |                             |
|                            | Slaughter, D.C.   | UC, Davis       | CA                          |
| <b>IS-3158-00C</b><br>2747 | <b>Regulation of Fertilization-Independent Endosperm Development by Polycomb Proteins</b>   |                 | Model System & Funct. Biol. |
|                            |   |                 | App. Duration: 3 years      |
|                            | Ohad, N.  | Tel Aviv U      |                             |
|                            | Fischer, R.L.   | UC, Berkeley    | CA                          |
| <b>US-3159-00C</b><br>2727 | <b>Streptococcus Iniae Infection in Trout and Tilapia: Host-Pathogen Interactions, the Immune Response Towards the Pathogen and Vaccine Formulation</b> |                 | Aquaculture                 |
|                            |   |                 | App. Duration: 3 years      |
|                            | Evans, D.L.   | U Georgia       | GA                          |
|                            | Eldar, A.   | Isr. Vet. Inst. |                             |
|                            | Jaso-Friedmann, L.  | U Georgia       | GA                          |
|                            | Bercovier, H.   | Hebrew U        |                             |
| <b>IS-3162-00R</b><br>2997 | <b>Redox Processes in Soils Irrigated with Reclaimed Sewage Effluents: Field Cycles and Basic Mechanism</b>   |                 | Ag. & the Environment       |
|                            |   |                 | App. Duration: 3 years      |
|                            | Banin, A.   | Hebrew U        |                             |
|                            | Stucki, J.W.  | U Illinois      | IL                          |
|                            | Kostka, J.E.  | Florida St. U   | FL                          |
| <b>US-3165-00R</b><br>3085 | <b>The Involvement of Antioxidant Enzymes and Genes in the Resistance Mechanism to Postharvest Superficial Scald Development</b>                        |                 | Postharvest                 |
|                            |   |                 | App. Duration: 3 years      |
|                            | Watkins, C.B.   | Cornell U       | NY                          |
|                            | Lurie, S.   | ARO, Min. Ag.   |                             |
|                            | Lers, A.  | ARO, Min. Ag.   |                             |
|                            | Conklin, P.L.   | Boyce Thompson  | NY                          |
| <b>US-3166-00</b>          | <b>Characterization and Control of KHV, A New Herpes Viral Pathogen of Koi and Common Carp</b>  |                 | Aquaculture                 |
|                            |   |                 | App. Duration: 3 years      |
|                            | Hedrick, R. P.  | UC, Davis       | CA                          |
|                            | Bercovier, H.   | Hebrew U        |                             |
| <b>US-3171-00C</b><br>2711 | <b>Creating an Ally from an Adversary: Genetic Manipulation of Citrus Tristeza</b>  |                 | Plant Protection            |
|                            |   |                 | App. Duration: 3 years      |
|                            | Dawson, W.O.  | U Florida       | FL                          |
|                            | Bar-Joseph, M.  | ARO, Min. Ag.   |                             |
| <b>US-3177-00C</b><br>2746 | <b>Manipulating Chloroplast Gene Expression: A Genetic and Mechanistic Analysis of Processes that Control RNA Stability</b>                             |                 | Model System & Funct. Biol. |
|                            |   |                 | App. Duration: 3 years      |
|                            | Stern, D.B.   | Boyce Thompson  | NY                          |
|                            | Schuster, G.  | Technion        |                             |

|                                  |  |                    |                             |
|----------------------------------|--|--------------------|-----------------------------|
| <b>US-3189-01</b>                | <b>Comparing the performance of naturally ventilated and fan-ventilated greenhouses</b>  |                    | Bioengineering & Sensors    |
|                                  |  |                    | App. Duration: 3 years      |
|                                  | Willits, D.H.  | N Carolina St. U   | NC                          |
|                                  | Teitel, M.   | ARO, Min. Ag.      |                             |
|                                  | Tanny, J.  | ARO, Min. Ag.      |                             |
|                                  | Peet, M.M.   | N Carolina St. U   | NC                          |
|                                  | Cohen, S.  | ARO, Min. Ag.      |                             |
|                                  | Matan, E.  | Isr. Min. Agr.     |                             |
| <b>US-3190-01</b>                | <b>X-ray and stereo imaging method for sensitive detection of bone fragments and hazardous materials in de-boned poultry fillets</b> |                    | Bioengineering & Sensors    |
|                                  |  |                    | App. Duration: 3 years      |
|                                  | Tao, Y.  | U Maryland         | MD                          |
|                                  | Alchanatis, V.   | ARO, Min. Ag.      |                             |
|                                  | Chen, Y.R.   | USDA, ARS          | MD                          |
| <b>US-3199-01CR</b><br>2643 3150 | <b>Placental lactogen enhances production efficiency in sheep</b>  |                    | Animal Production           |
|                                  |  |                    | App. Duration: 3 years      |
|                                  | Spencer, T.E.  | Texas A&M          | TX                          |
|                                  | Gootwine, E.   | ARO, Min. Ag.      |                             |
|                                  | Gertler, A.  | Hebrew U           |                             |
|                                  | Bazer, F.W.  | Texas A&M          | TX                          |
| <b>US-3201-01R</b><br>3178       | <b>Environmental manipulation during the dry period of ruminants: strategies to enhance subsequent lactation</b>                     |                    | Animal Production           |
|                                  |  |                    | App. Duration: 3 years      |
|                                  | Dahl, G.E.   | U Illinois         | IL                          |
|                                  | Mabjeesh, S.J  | Hebrew U           |                             |
|                                  | McFadden, T.B.   | U Vermont          | VT                          |
|                                  | Shamay, A.   | ARO, Min. Ag.      |                             |
| <b>US-3205-01R</b><br>3102       | <b>Characterization of bee viruses and an investigation of their mode of spread</b>  |                    | Animal Health               |
|                                  |  |                    | App. Duration: 3 years      |
|                                  | Cameron, C.E.  | Penn State U       | PA                          |
|                                  | Sela, I.   | Hebrew U           |                             |
|                                  | Yakobson, B.A.   | Isr. Vet. Inst.    |                             |
|                                  | deMiranda, J.R.  | Penn State U       | PA                          |
|                                  | Slabezki, Y.   | Isr. Min. Agr.     |                             |
| <b>IS-3214-01</b>                | <b>Altering GnRH neuron development as a method to induce hypogonadism and sterility in farmed fish: a feasibility study</b>         |                    | Aquaculture                 |
|                                  |  |                    | App. Duration: 1 year       |
|                                  | Gothilf, Y.  | Tel Aviv U         |                             |
|                                  | Zohar, Y.  | UMD Marine BioTech | MD                          |
|                                  | Wray, S.   | NIH                | MD                          |
| <b>IS-3215-01</b>                | <b>The function of protein farnesylation in early events of ABA signal transduction in stomatal guard cells of Arabidopsis</b>       |                    | Model System & Funct. Biol. |
|                                  |  |                    | App. Duration: 3 years      |
|                                  | Yalovsky, S.   | Tel Aviv U         |                             |
|                                  | Schroeder, J.I.  | UC, San Diego      | CA                          |
| <b>IS-3222-01C</b><br>2636       | <b>Mechanisms of intra- and intercellular targeting and movement of tobacco mosaic virus.</b>  |                    | Model System & Funct. Biol. |
|                                  |  |                    | App. Duration: 3 years      |
|                                  | Epel, B.L.   | Tel Aviv U         |                             |
|                                  | Beachy, R.N.   | Danforth Center    | MO                          |

|                            |  |                |   |
|----------------------------|--|----------------|---|
| <b>US-3223-01C</b><br>2948 | <b>DNA damage, repair and recombination in plants</b>  |                | Model System & Funct. Biol.<br>App. Duration: 3 years |
|                            | Weil, C. F.  | Purdue         | IN  |
|                            | Levy, A.A.   | Weizmann Inst. |   |
|                            | Britt, A.  | UC, Davis      | CA  |
|                            | Simchen, G.  | Hebrew U       |   |
| <b>US-3224-01R</b><br>3064 | <b>Positional cloning of a gene responsible for high grain protein content in tetraploid wheat</b>                                     |                | Field Crops & Hort.<br>App. Duration: 3 years         |
|                            | Dubcovsky, J.  | UC, Davis      | CA  |
|                            | Fahima, T.   | U Haifa        |   |
|                            | Blechl, A.E.   | USDA, ARS      | CA  |
| <b>IS-3225-01C</b><br>2389 | <b>Genetics and comparative molecular mapping of biochemical and morphological fruit characters in Capsicum</b>                        |                | Field Crops & Hort.<br>App. Duration: 3 years         |
|                            | Paran, I.  | ARO, Min. Ag.  |   |
|                            | Jahn, M.   | Cornell U      | NY  |
| <b>US-3231-01R</b><br>3160 | <b>Biotechnology approaches to enhance phosphorus acquisition of tomato plants</b>   |                | Field Crops & Hort.<br>App. Duration: 3 years         |
|                            | Raghothama, K.G.   | Purdue         | IN  |
|                            | Silber, A.   | ARO, Min. Ag.  |   |
|                            | Levy, A.A.   | Weizmann Inst. |   |
| <b>IS-3237-01</b>          | <b>A functional genomics approach to dissect resistance of tomato to bacterial spot disease</b>  |                | Field Crops & Hort.<br>App. Duration: 3 years         |
|                            | Sessa, G.  | Tel Aviv U     |   |
|                            | Martin, G.B.   | Boyce Thompson | NY  |
| <b>US-3240-01</b>          | <b>Effects of root zone temperature, oxygen concentration, and moisture content on actual vs. potential growth of greenhouse crops</b> |                | Field Crops & Hort.<br>App. Duration: 3 years         |
|                            | Lieth, J.H.  | UC, Davis      | CA  |
|                            | Raviv, M.  | ARO, Min. Ag.  |   |
|                            | Burger, D.W.   | UC, Davis      | CA  |
| <b>US-3245-01</b>          | <b>Regulated expression of site-specific DNA recombination for precision genetic engineering of apple</b>                              |                | Field Crops & Hort.<br>App. Duration: 3 years         |
|                            | Norelli, J.L.  | USDA, ARS      | WV  |
|                            | Flaishman, M.A.  | ARO, Min. Ag.  |   |
|                            | Aldwinckle, H.S.   | Cornell U      | NY  |
|                            | Gidoni, D.   | ARO, Min. Ag.  |   |
| <b>IS-3255-01</b>          | <b>Inhibition of geminiviruses nuclear import: a novel approach for combating virus diseases in plants</b>                             |                | Plant Protection<br>App. Duration: 3 years            |
|                            | Loyter, A.   | Hebrew U       |   |
|                            | Gilbertson, R.L.   | UC, Davis      | CA  |
|                            | Lucas, W.J.  | UC, Davis      | CA  |
| <b>US-3256-01</b>          | <b>Manipulation of the post-teneral environment to increase sexual competitiveness and survival of male Mediterranean fruit flies</b>  |                | Plant Protection<br>App. Duration: 3 years            |
|                            | Shelly, T.E.   | U Hawaii       | HI  |
|                            | Yuval, B.  | Hebrew U       |   |
|                            | McInnis, D.O.  | USDA, ARS      | HI  |

|                            |   |   |
|----------------------------|---|---|
| <b>IS-3259-01</b>          | <b>Determination of the architectural features sodium channel receptors that bind anti-insect selective toxins for design of environmentally safe pesticides</b>  | Model System & Funct. Biol.<br>App. Duration: 3 years |
|                            | Gordon, D. Tel Aviv U<br>Kallen, R.G. U Penn<br>Gurevitz, M. Tel Aviv U   | PA  |
| <b>US-3260-01C</b><br>2520 | <b>Characterization of fungal symbiotic lifestyle expression in Colletotrichum and generating non-pathogenic mutants that confer disease resistance, drought tolerance, and growth enhancement to plant hosts</b> | Plant Protection<br>App. Duration: 3 years            |
|                            | Rodriguez, R.J. U Washington<br>Freeman, S. ARO, Min. Ag.   | WA  |
| <b>US-3265-01C</b><br>2816 | <b>The roles Hrp-dependent effector proteins and hrp gene regulation as determinants of virulence and host-specificity in Erwinia stewartii and E. herbicola pvs. gypsophilae and betae.</b>                      | Plant Protection<br>App. Duration: 3 years            |
|                            | Coplin, D.L. Ohio St. U<br>Manulis, S. ARO, Min. Ag.<br>Barash, I. Tel Aviv U   | OH  |
| <b>IS-3271-01R</b><br>3118 | <b>Ethanol for postharvest decay control of table grapes: application and mode of action</b>  | Postharvest<br>App. Duration: 3 years                 |
|                            | Lichter, A. ARO, Min. Ag.<br>Smilanick, J.L. USDA, ARS<br>Margosan, D.A. USDA, ARS<br>Lurie, S. ARO, Min. Ag.   | CA<br>CA  |
| <b>US-3276-01</b>          | <b>Disinfestation of Mediterranean and Mexican fruit flies in citrus using radio and microwave energy</b>   | Postharvest<br>App. Duration: 3 years                 |
|                            | Tang, J. WA State U<br>Gazit, Y. Citrus Marketing<br>Rossler, Y. Citrus Marketing<br>Lurie, S. ARO, Min. Ag.<br>Hallman, G.J. USDA, ARS<br>Sheppard, W.S. WA State U  | WA<br>TX<br>WA  |
| <b>IS-3280-01</b>          | <b>Spices, medicinal plants and yeasts as dietary sources for antioxidants, lipid lowering and hypoglycemic materials</b>   | Postharvest<br>App. Duration: 3 years                 |
|                            | Mirsky, N. U Haifa<br>Anderson, USDA, ARS<br>Yannai, S. Technion  | MD  |
| <b>IS-3282-01R</b><br>3107 | <b>Effect of different water regimes on plant development, fruiting and water relations in three vine cacti crops</b>   | Ag. & the Environment<br>App. Duration: 3 years       |
|                            | Mizrahi, Y. Ben Gurion U<br>Nobel, P.S. UCA, Los Angeles<br>Ben-Asher, J. Ben Gurion U<br>Nerd, A. Ben Gurion U   | CA  |

|                            |   |                  |  |
|----------------------------|---|------------------|--|
| <b>IS-3284-01</b>          | <b>Influence of hydraulic properties of rootstocks and the rootstock-scion graft on water use and productivity of apple trees</b> |                  | Ag. & the Environment<br>App. Duration: 1 year         |
|                            | Cohen, S.   | ARO, Min. Ag.    |  |
|                            | Tyree, M.   | VT USDA NFS      | VT   |
|                            | Naor, A.  | MIGAL R&D        |  |
|                            | Lakso, A.N.   | Cornell U        | NY   |
|                            | Robinson, T.  | Cornell U        | NY   |
|                            | Cohen, Y.   | ARO, Min. Ag.    |  |
| <b>US-3287-01R</b><br>2967 | <b>Scale-dependency and spatial variability of soil hydraulic properties</b>  |                  | Ag. & the Environment<br>App. Duration: 3 years        |
|                            | Zhang, R.   | U Wyoming        | WY   |
|                            | Russo, D.   | ARO, Min. Ag.    |  |
| <b>IS-3291-02</b>          | <b>The dynamics of off-farm employment, farm size, and farm structure</b>   |                  | Ag. Economics & Rural Devel.<br>App. Duration: 3 years |
|                            | Kimhi, A.   | Hebrew U         |  |
|                            | Goodwin, B.   | N Carolina St. U | NC   |
|                            | Mishra, A.K.  | USDA, ARS        | DC   |
|                            | Ahituv, A.  | U Haifa          |  |
|                            | Kislev, Y.  | Cent Ag Econ Re  |  |
| <b>US-3293-02C</b><br>3155 | <b>A mid-IR based soil nitrate sensor for real-time applications</b>  |                  | Bioengineering & Sensors<br>App. Duration: 3 years     |
|                            | Upadhyaya, S.K.   | UC, Davis        | CA   |
|                            | Shaviv, A.G.  | Technion         |  |
|                            | Katzir, A.  | Tel Aviv U       |  |
|                            | Slaughter, D.C.   | UC, Davis        | CA   |
|                            | Shmulevich, I.E.  | Technion         |  |
| <b>US-3296-02R</b><br>3278 | <b>Rapid detection of food borne pathogens and non-pathogens in fresh produce using FT-IRS and raman spectroscopy</b>             |                  | Bioengineering & Sensors<br>App. Duration: 1 year      |
|                            | Irudayaraj, J.M.K.  | Penn State U     | PA   |
|                            | Schmilovitch, Z.  | ARO, Min. Ag.    |  |
|                            | Mizrach, A.   | ARO, Min. Ag.    |  |
|                            | Kritzman, G.  | ARO, Min. Ag.    |  |
|                            | DebRoy, C.  | Penn State U     | PA   |
| <b>IS-3297-02</b>          | <b>The effect of lactic acid bacteria silage inoculants on the ruminal ecosystem, fiber digestibility and animal performance</b>  |                  | Animal Production<br>App. Duration: 1 year             |
|                            | Weinberg, Z.G.  | ARO, Min. Ag.    |  |
|                            | Muck, R.E.  | USDA, ARS        | WI   |
|                            | Gollop, N.  | ARO, Min. Ag.    |  |
|                            | Ashbell, G.   | ARO, Min. Ag.    |  |
|                            | Weimer, P.J.  | USDA, ARS        | WI   |
|                            | Kung, Jr., L.   | U Delaware       | DE   |
| <b>IS-3311-02</b>          | <b>Enhancement of development of broilers and poult by in ovo feeding</b>   |                  | Animal Production<br>App. Duration: 3 years            |
|                            | Uni, Z.   | Hebrew U         |  |
|                            | Ferket, P.R.  | N Carolina St. U | NC   |

|                            |   |   |
|----------------------------|---|---|
| <b>US-3315-02C</b><br>2799 | <b>Control of bovine anaplasmosis: cytokine enhancement of vaccine efficacy</b>   | Animal Health<br>App. Duration: 3 years               |
|                            | Palmer, G.H. WA State U WA  |   |
|                            | Shkap, V. Isr. Vet. Inst. WA  |   |
|                            | Brown, W.C. WA State U WA   |   |
|                            | Molad, T. Isr. Vet. Inst. WA  |   |
| <b>IS-3319-02R</b><br>3210 | <b>Inland mariculture of reef corals amenable for the ornamental trade</b>  | Aquaculture<br>App. Duration: 3 years                 |
|                            | Rinkevich, B. Isr. Ocean. Res. HI   |   |
|                            | Hunter, C.L. U Hawaii HI  |   |
| <b>IS-3326-02C</b><br>2894 | <b>Mutual effects of hexose phosphorylation enzymes and phosphorous on plant development</b>                                  | Model System & Funct. Biol.<br>App. Duration: 3 years |
|                            | Granot, D. ARO, Min. Ag. WI   |   |
|                            | Amasino, R.M. U Wisconsin WI  |   |
|                            | Silber, A. ARO, Min. Ag. WI   |   |
| <b>US-3327-02</b>          | <b>DNA transfer by Agrobacterium: a cooperative interaction of ssDNA, virulence proteins, and plant host factors</b>          | Model System & Funct. Biol.<br>App. Duration: 3 years |
|                            | Tzfira, T. NYSU, Stony Brook NY   |   |
|                            | Elbaum, M. Weizmann Inst. NY  |   |
|                            | Wolf, S. Weizmann Inst. NY  |   |
| <b>IS-3328-02</b>          | <b>Regulation of plants lateral organs shape and size by the KANADI-mediated signaling pathway</b>                            | Model System & Funct. Biol.<br>App. Duration: 3 years |
|                            | Eshed, Y. Weizmann Inst. CA   |   |
|                            | Bowman, J.L. UC, Davis CA   |   |
| <b>IS-3331-02</b>          | <b>Molecular, biochemical and genetic dissection of the regulatory role of casein kinase 2 in lysine catabolism in plants</b> | Field Crops & Hort.<br>App. Duration: 3 years         |
|                            | Galili, G. Weizmann Inst. CA  |   |
|                            | Tobin, E.M. UCA, Los Angeles CA   |   |
|                            | Green, R.M. Hebrew U CA   |   |
| <b>IS-3332-02C</b><br>2709 | <b>Functional genomics of citral biosynthesis in aromatic plants: Pathway elucidation and applications.</b>                   | Field Crops & Hort.<br>App. Duration: 3 years         |
|                            | Lewinsohn, E. ARO, Min. Ag. MI  |   |
|                            | Pichersky, E. U Michigan MI   |   |
|                            | Simon, J.E. Rutgers NJ  |   |
|                            | Dudai, N. ARO, Min. Ag. NJ  |   |
| <b>IS-3333-02</b>          | <b>Genomic approach to the improvement of fruit quality in melon (Cucumis melo) and related cucurbit crops</b>                | Field Crops & Hort.<br>App. Duration: 3 years         |
|                            | Katzir, N. ARO, Min. Ag. NY   |   |
|                            | Giovannoni, J. USDA, ARS NY   |   |
|                            | Burger, Y. ARO, Min. Ag. NY   |   |
| <b>IS-3337-02</b>          | <b>Saturation mutagenesis in tomato: an integrated infrastructure for functional genomics</b>                                 | Field Crops & Hort.<br>App. Duration: 3 years         |
|                            | Zamir, D. Hebrew U CA   |   |
|                            | Chetelat, R.T. UC, Davis CA   |   |
|                            | Tanksley, S.D. Cornell U NY   |   |



|                    |   |  |
|--------------------|---|--|
| <b>IS-3368-02</b>  | <b>Understanding the hardening syndrome of potato (<i>Solanum tuberosum</i> L.) tuber tissue to eliminate textural defects in fresh and fresh-peeled/cut products</b> | Postharvest<br>App. Duration: 3 years                  |
|                    | Shomer, I. ARO, Min. Ag.  |  |
|                    | Stark, R.E. CSI, CUNY   | NY   |
|                    | Gaba, V.P. ARO, Min. Ag.  |  |
|                    | Batteas, J. CSI, CUNY   | NY   |
| <b>US-3377-02</b>  | <b>Physical processes affecting microbial habitats and activity in unsaturated agricultural soils</b>   | Ag. & the Environment<br>App. Duration: 3 years        |
|                    | Or, D. U Connecticut  | CT   |
|                    | Friedman, S.P. ARO, Min. Ag.  |  |
|                    | Norton, J. Utah St U  | UT   |
| <b>US-3381-02</b>  | <b>Improving nutrient availability in alkaline coal combustion by-products amended with composted animal manures</b>  | Ag. & the Environment<br>App. Duration: 3 years        |
|                    | Dick, W.A. Ohio St. U   | OH   |
|                    | Chen, Y. Hebrew U   |  |
|                    | Watson, M. Ohio St. U   | OH   |
| <b>IS-3385-03R</b> | <b>Sorption of hydrophobic pesticides to aliphatic components of soil organic matter</b>  | Ag. & the Environment<br>App. Duration: 3 years        |
| 3375               | Chefetz, B. Hebrew U  |  |
|                    | Xing, B. U Mass   | MA   |
| <b>US-3393-03R</b> | <b>Synchrotron CMT-measured soil physical properties influenced by soil compaction</b>  | Ag. & the Environment<br>App. Duration: 1 year         |
| 3379               | Gantzer, C.J. U Missouri  | MO   |
|                    | Assouline, S. ARO, Min. Ag.   |  |
|                    | Anderson, S. U Missouri   | MO   |
| <b>IS-3397-03R</b> | <b>Dynamic intraseasonal irrigation management under water scarcity, water quality, irrigation technology and environmental constraints</b>                           | Ag. Economics & Rural Devel.<br>App. Duration: 3 years |
| 3292               | Tsur, Y. Hebrew U   |  |
|                    | Zilberman, D. UC, Berkeley  | CA   |
|                    | Shani, U. Hebrew U  |  |
|                    | Zemel, A. Ben Gurion U  |  |
|                    | Sunding, D. UC, Berkeley  | CA   |
| <b>US-3399-03C</b> | <b>Environmental factors affecting the decline in reproductive efficiency of turkey hens: Mediation by vasoactive intestinal peptide</b>                              | Animal Production<br>App. Duration: 3 years            |
| 2846               | El Halawani, M.E. U Minnesota   | MN   |
|                    | Rozenboim, I. Hebrew U  |  |
| <b>IS-3403-03R</b> | <b>Disordered angiogenesis in tibial dyschondroplasia: the role of dithiocarbamates.</b>  | Animal Production<br>App. Duration: 3 years            |
| 3301               | Monsonogo-Ornan, E. Hebrew U  |  |
|                    | Leach, R.M. Penn State U  | PA   |
|                    | Gay, C. V. Penn State U   | PA   |
|                    | Pines, M. ARO, Min. Ag.   |  |
|                    | Yahav, S. ARO, Min. Ag.   |  |

|                            |   |   |
|----------------------------|---|---|
| <b>IS-3404-03C</b><br>2540 | <b>The role of surface lipoproteins in pathogenesis of <i>Mycoplasma bovis</i> disease in cows and their application in diagnosis and control</b> | Animal Health<br>App. Duration: 3 years       |
|                            | Yogev, D. Hebrew U<br>Brown, M. U Florida<br>Levisohn, S. Isr. Vet. Inst.<br>Lysnyansky, I. Isr. Vet. Inst.                                       | FL  |
| <b>US-3406-03R</b><br>3300 | <b>High resolution linkage disequilibrium mapping of QTL affecting milk production traits in Israel Holstein dairy cattle</b>                     | Animal Production<br>App. Duration: 3 years   |
|                            | Medrano, J.F. UC, Davis<br>Friedmann, A. Hebrew U<br>Soller, M. Hebrew U<br>Lipkin, E. Hebrew U<br>Korol, A.B. U Haifa                            | CA  |
| <b>US-3408-03C</b><br>3021 | <b>Genes and immunological mechanisms that provide protection against important pathogens of poultry</b>  | Animal Health<br>App. Duration: 3 years       |
|                            | Lamont, S.J. Iowa St. U<br>Pitcovski, J. MIGAL R&D<br>Cahaner, A. Hebrew U<br>Heller, E.D. Hebrew U   | IA  |
| <b>IS-3413-03</b>          | <b>Identification and characterization of <i>Mycobacterium paratuberculosis</i> virulence genes expressed in vivo by negative selection</b>       | Animal Health<br>App. Duration: 1 year        |
|                            | Shpigel, N.Y. Hebrew U<br>Barletta, R.G. U Nebraska<br>Rosenshine, I. Hebrew U<br>Chaffer, M. Isr. Vet. Inst.                                     | NE  |
| <b>US-3422-03R</b><br>3308 | <b>Peripartum dietary supplementation to enhance fertility in high yielding dairy cows</b>  | Animal Production<br>App. Duration: 3 years   |
|                            | Butler, W.R. Cornell U<br>Moallem, U. ARO, Min. Ag.<br>Arieli, A. Hebrew U<br>Gilbert, R.O. Cornell U<br>Sklan, D. Hebrew U                       | NY<br><br>NY                                  |
| <b>IS-3424-03</b>          | <b>Anaerobic ammonia oxidation as a novel approach for water treatment in marine and freshwater aquaculture recirculating systems</b>             | Aquaculture<br>App. Duration: 3 years         |
|                            | Van Rijn, J. Hebrew U<br>Schreier, H.J. UMD Marine BioTech<br>Tal, Y. UMD Marine BioTech  | MD<br>MD                                      |
| <b>IS-3428-03C</b><br>3214 | <b>Inducing sterility in farmed fish by disrupting the development of the GnRH System.</b>  | Aquaculture<br>App. Duration: 3 years         |
|                            | Gothilf, Y. Tel Aviv U<br>Zohar, Y. UMD Marine BioTech<br>Wray, S. NIH<br>Rosenfeld, H. Isr. Ocean. Res.  | MD<br>MD                                      |
| <b>IS-3434-03</b>          | <b>Molecular mechanisms of plant reproductive adaptation to aridity gradients</b>   | Field Crops & Hort.<br>App. Duration: 3 years |
|                            | Samach, A. Hebrew U<br>Cook, D. R. UC, Davis<br>Kigel, J. Hebrew U  | CA  |

|                            |   |   |
|----------------------------|---|---|
| <b>US-3437-03</b>          | <b>Integrating biochemical and genomic approaches to elucidate C6-C2 volatile production: improvement of floral scent and fruit aroma</b>                         | Field Crops & Hort.<br>App. Duration: 3 years         |
|                            | Dudareva, N. Purdue IN<br>Vainstein, A. Hebrew U<br>Pichersky, E. U Michigan MI<br>Weiss, D. Hebrew U   |   |
| <b>IS-3441-03</b>          | <b>Modulating phytonutrient content in tomatoes combining engineered polyamine metabolism with photomorphogenic mutants</b>                                       | Field Crops & Hort.<br>App. Duration: 3 years         |
|                            | Levin, I. ARO, Min. Ag.<br>Handa, A.K. Purdue IN<br>Lalazar, A. ARO, Min. Ag.<br>Mattoo, A.K. USDA, ARS MD  |   |
| <b>IS-3451-03</b>          | <b>Translational regulation and light signal transduction in plants: the link between eIF3 and the COP9 signalosome</b>   | Model System & Funct. Biol.<br>App. Duration: 3 years |
|                            | Chaimovitz, A.D. Tel Aviv U<br>Von Arnim, A.G. U Tennessee TN   |   |
| <b>IS-3453-03</b>          | <b>Similarities and differences in KNOX function</b>  | Model System & Funct. Biol.<br>App. Duration: 3 years |
|                            | Ori, N. Hebrew U<br>Hake, S. USDA, ARS CA   |   |
| <b>IS-3454-03</b>          | <b>Harnessing the genetic diversity engendered by alternative gene splicing</b>   | Model System & Funct. Biol.<br>App. Duration: 3 years |
|                            | Fluhr, R. Weizmann Inst.<br>Brendel, V. Iowa St. U IA   |   |
| <b>IS-3460-03</b>          | <b>A functional genomic screen for new plant cytoskeletal proteins and the determination of their role in actin mediated functions and guard cells regulation</b> | Model System & Funct. Biol.<br>App. Duration: 1 years |
|                            | Sadot, E. ARO, Min. Ag.<br>Staiger, C.J. Purdue IN<br>Kam, Z. Weizmann Inst.  |   |
| <b>IS-3479-03</b>          | <b>Functional genomics characterization of the whitefly Bemisia tabaci begomovirus interaction: an EST and array-based transcript profiling approach.</b>         | Plant Protection<br>App. Duration: 3 years            |
|                            | Czosnek, H.H. Hebrew U<br>Shatters, R.G. USDA, ARS FL<br>Mckenzie, C. USDA, ARS FL<br>Brown, J.K. U Arizona AZ  |   |
| <b>IS-3480-03</b>          | <b>Sensitivity of a wide array of insect sodium channels to anti-insect selective toxins: a key for preventing resistance buildup to pyrethroids</b>              | Plant Protection<br>App. Duration: 3 years            |
|                            | Gurevitz, M. Tel Aviv U<br>Dong, K.E. Michigan St. U MI<br>Gordon, D. Tel Aviv U  |   |
| <b>US-3483-03C</b><br>3171 | <b>Creating an ally from an adversary: genetic manipulation of Citrus tristeza virus</b>  | Plant Protection<br>App. Duration: 3 years            |
|                            | Dawson, W.O. U Florida FL<br>Bar-Joseph, M. ARO, Min. Ag.<br>Carmi, N. ARO, Min. Ag.  |   |

|                                  |  |                  |   |
|----------------------------------|--|------------------|---|
| <b>US-3491-03</b>                | <b>Comparative studies of fungal pathogeneses in two hemibiotrophs: Magnaporthe grisea and Colletotrichum gloeosporioides</b>                        |                  | Plant Protection<br>App. Duration: 3 years      |
|                                  | Xu, J.R.   | Purdue           | IN  |
|                                  | Sharon, A.   | Tel Aviv U       |   |
| <b>IS-3492-03</b>                | <b>Success and failure in insect fertilization and reproduction - the role of the female accessory glands</b>  |                  | Plant Protection<br>App. Duration: 3 years      |
|                                  | Heifetz, Y.  | Hebrew U         |   |
|                                  | Bender, M.   | U Georgia        | GA  |
| <b>IS-3493-03CR</b><br>2786 3373 | <b>Development of novel ethylene antagonists for the control of production processes in agricultural crops</b>                                       |                  | Postharvest<br>App. Duration: 3 years           |
|                                  | Goldschmidt, E.E.  | Hebrew U         |   |
|                                  | Sisler, E.C.   | N Carolina St. U | NC  |
|                                  | Riov, J.   | Hebrew U         |   |
|                                  | Goren, R.  | Hebrew U         |   |
|                                  | Apelbaum, A.   | Hebrew U         |   |
| <b>IS-3494-03</b>                | <b>Characterization of the biochemical basis of host specificity of <i>Penicillium digitatum</i> and <i>Penicillium italicum</i> on citrus fruit</b> |                  | Postharvest<br>App. Duration: 3 years           |
|                                  | Droby, S.  | ARO, Min. Ag.    |   |
|                                  | Gottwald, T.R.   | USDA, ARS        | FL  |
|                                  | Stange, R.   | USDA, ARS        | FL  |
|                                  | Lewinsohn, E.  | ARO, Min. Ag.    |   |
|                                  | McCollum, T.G.   | USDA, ARS        | FL  |
| <b>IS-3499-03R</b><br>3367       | <b>Identification and characterization of genes involved in the acquisition of chilling tolerance in citrus fruit</b>                                |                  | Postharvest<br>App. Duration: 3 years           |
|                                  | Porat, R.  | ARO, Min. Ag.    |   |
|                                  | McCollum, T.G.   | USDA, ARS        | FL  |
|                                  | Lers, A.   | ARO, Min. Ag.    |   |
|                                  | Guy, C.L.  | U Florida        | FL  |
| <b>US-3500-03</b>                | <b>Fast, practical, and effective approach for the analysis of hazardous chemicals in the food supply</b>  |                  | Postharvest<br>App. Duration: 3 years           |
|                                  | Lehotay, S.J.  | USDA, ARS        | PA  |
|                                  | Amirav, A.   | Tel Aviv U       |   |
| <b>US-3507-04R</b><br>3383       | <b>Enhancement of plant disease resistance and productivity through use of root symbiotic fungi</b>  |                  | Ag. & the Environment<br>App. Duration: 3 years |
|                                  | Harman, G.E.   | Cornell U        | NY  |
|                                  | Chet, I.   | Hebrew U         |   |
|                                  | Viterbo, A.  | Weizmann Inst.   |   |
| <b>IS-3512-04</b>                | <b>Ecology of seed-colonizing microbial communities: influence of soil and plant factors and implications for rhizosphere microbiology</b>           |                  | Ag. & the Environment<br>App. Duration: 3 years |
|                                  | Minz, D.   | ARO, Min. Ag.    |   |
|                                  | Nelson, E.B.   | Cornell U        | NY  |
|                                  | Hadar, Y.  | Hebrew U         |   |

|                     |                |  |  |
|---------------------|----------------|--|--|
| <b>IS-3517-04R</b>  | 3387           | <b>Effects of soil properties and organic residues management on C sequestration and N losses</b>  | Ag. & the Environment<br>App. Duration: 3 years        |
|                     |                | Bar-Tal, A.                      ARO, Min. Ag.   |  |
|                     |                | Bloom, P.R.                      U Minnesota   | MN   |
|                     |                | Fine, P.                              ARO, Min. Ag.  |  |
|                     |                | Clapp, C.E.                      USDA, ARS   | MN   |
|                     |                | Hadas, A.                          ARO, Min. Ag.   |  |
|                     |                | Venterea, R.T.                      USDA, ARS  | MN   |
|                     |                | Zohar, D.                          Isr. Min. Agr.  |  |
|                     |                | Chen, D.                              U Minnesota  | MN   |
|                     |                | Molina, J.E.                      U Minnesota  | MN   |
| <b>IS-3522-04R</b>  | 8002           | <b>Elimination of emissions of ammonia and hydrogen sulfide from confined animal and feeding operations (CAFO) using an adsorption/liquid-redox process with biological regeneration</b> | Ag. & the Environment<br>App. Duration: 3 years        |
|                     |                | Lahav, O.                          Technion  |  |
|                     |                | Heber, A.J.                          Purdue  | IN   |
|                     |                | Brodav, D.                          Technion   |  |
| <b>IS-3527-04</b>   |                | <b>The economics of contracts in the US and Israel agricultures</b>  | Ag. Economics & Rural Devel.<br>App. Duration: 3 years |
|                     |                | Finkelshtain, I.                      Hebrew U   |  |
|                     |                | Melkonyan, A                      U Maryland   | MD   |
|                     |                | Kachel, Y.                          Hebrew U   |  |
| <b>US-3535-04R</b>  | 3402           | <b>Chicken infectious anemia virus: immunosuppression, transmission and impact on other diseases</b>   | Animal Health<br>App. Duration: 3 years                |
|                     |                | Schat, K.A.                          Cornell U   | NY   |
|                     |                | Davidson, I.                          Isr. Vet. Inst.  |  |
|                     |                | Heller, E.D.                          Hebrew U   |  |
| <b>US-3538-04CR</b> | 2913      3410 | <b>Identification of bovine <i>Neospora caninum</i> cytotoxic T-lymphocyte epitopes for development of peptide-based vaccine</b>   | Animal Health<br>App. Duration: 1 year                 |
|                     |                | Baszler, T.V.                          WA State U  | WA   |
|                     |                | Savitsky, I.                          Isr. Vet. Inst.  |  |
|                     |                | Davies, C.J.                          WA State U   | WA   |
|                     |                | Staska, L.M.                          WA State U   | WA   |
|                     |                | Shkap, V.                              Isr. Vet. Inst.   |  |
| <b>IS-3539-04CR</b> | 3166      3426 | <b>Diagnostic, eco-epidemiology and control of KHV, a new viral pathogen of koi and common carp</b>  | Animal Health<br>App. Duration: 3 years                |
|                     |                | Bercovier, H.                          Hebrew U  |  |
|                     |                | Hedrick, R. P.                          UC, Davis  | CA   |
| <b>US-3551-04</b>   |                | <b>Embryo transfer as a tool for improving fertility of heat-stressed dairy cattle</b>   | Animal Production<br>App. Duration: 3 years            |
|                     |                | Hansen, P.J.                          U Florida  | FL   |
|                     |                | Arav, A.                              ARO, Min. Ag.  |  |

|                                  |  |   |
|----------------------------------|--|---|
| <b>IS-3553-04</b>                | <b>Controlling the bovine ovarian cycle by disrupting the endothelin system in <i>corpora lutea</i> and follicles with novel approaches: RNA interference (RNAi) and intra-luteal Atrigel implants</b> | Animal Production<br>App. Duration: 1 year            |
|                                  | Meidan, R. Hebrew U  |   |
|                                  | Flores, J.A. U West Virginia   | WV  |
|                                  | Inskeep, E.K. U West Virginia  | WV  |
|                                  | Wolfenson, D. Hebrew U   |   |
| <b>IS-3555-04</b>                | <b>Goats for maximal efficacy of brush control</b>   | Animal Production<br>App. Duration: 3 years           |
|                                  | Landau, S.Y. ARO, Min. Ag.   |   |
|                                  | Walker, J. Texas A&M   | TX  |
|                                  | Perevolotsky, A. ARO, Min. Ag.   |   |
|                                  | Ungar, E.D. ARO, Min. Ag.  |   |
|                                  | Taylor, B. Texas A&M   | TX  |
|                                  | Waldron, D.F. Texas A&M  | TX  |
| <b>IS-3561-04</b>                | <b>Elucidating the molecular pathway of sex determination in cultured Tilapias and use of genetic markers for creating monosex populations</b>   | Aquaculture<br>App. Duration: 3 years                 |
|                                  | Hulata, G. ARO, Min. Ag.   |   |
|                                  | Kocher, T.D. U New Hampshire   | NH  |
|                                  | Ron, M. ARO, Min. Ag.  |   |
| <b>IS-3565-04</b>                | <b>Improving fry quality, survival and growth in commercially farmed fish by dietary stimulation of thyroid hormone production in premetamorphosing larvae</b>   | Aquaculture<br>App. Duration: 3 years                 |
|                                  | Koven, W. Isr. Ocean. Res.   |   |
|                                  | Grau, E.G. U Hawaii  | HI  |
|                                  | Ron, B. Isr. Ocean. Res.   |   |
|                                  | Hirano, T. U Hawaii  | HI  |
| <b>US-3573-04C</b><br>3224       | <b>Validation of a candidate gene for increased grain protein content in wheat</b>   | Field Crops & Hort.<br>App. Duration: 3 years         |
|                                  | Dubcovsky, J. UC, Davis  | CA  |
|                                  | Fahima, T. U Haifa   |   |
|                                  | Blechl, A.E. USDA, ARS   | CA  |
|                                  | San Miguel, P. Purdue  | IN  |
| <b>US-3575-04R</b><br>3433       | <b>Citric acid metabolism and mobilization in citrus fruit</b>   | Field Crops & Hort.<br>App. Duration: 3 years         |
|                                  | Blumwald, E. UC, Davis   | CA  |
|                                  | Sadka, A. ARO, Min. Ag.  |   |
| <b>IS-3581-04</b>                | <b>Molecular genetic and anatomical characterization of potato tuber skin appearance</b>   | Field Crops & Hort.<br>App. Duration: 3 years         |
|                                  | Ginzberg, I. ARO, Min. Ag.   |   |
|                                  | DeJong, W.S. Cornell U   | NY  |
| <b>IS-3604-04CR</b><br>3158 3463 | <b>Regulation of plant development by polycomb group proteins</b>  | Model System & Funct. Biol.<br>App. Duration: 3 years |
|                                  | Ohad, N. Tel Aviv U  |   |
|                                  | Fischer, R.L. UC, Berkeley   | CA  |

|                                  |   |   |          |   |
|----------------------------------|---|---|----------|---|
| <b>IS-3605-04CR</b><br>3177 3459 | <b>Integration of phosphorus and chloroplast mRNA metabolism through regulated ribonucleases</b><br>Schuster, G.<br>Stern, D.B.   | Technion<br>Boyce Thompson                              | NY       | Model System & Funct. Biol.<br>App. Duration: 3 years |
| <b>IS-3622-04R</b><br>3465       | <b>Global functional genomics of plant cell transformation by agrobacterium</b><br>Ron, E.Z.<br>Nester, E.W.  | Tel Aviv U<br>U Washington                              | WA       | Plant Protection<br>App. Duration: 3 years            |
| <b>US-3623-04</b>                | <b>Functional analysis of virus and host components that mediate potyvirus-induced diseases</b><br>Whitham, S.A.<br>Gal-On, A.<br>Arazi, T.   | Iowa St. U<br>ARO, Min. Ag.<br>ARO, Min. Ag.            | IA       | Plant Protection<br>App. Duration: 3 years            |
| <b>US-3624-04CR</b><br>3094 3477 | <b>Involvement of the PKA and MAPK signal transduction pathways in sclerotial morphogenesis in <i>Sclerotinia sclerotiorum</i></b><br>Dickman, M.B.<br>Yarden, O.<br>Dickman, M.B.                              | U Nebraska<br>Hebrew U<br>TX AgriLife Res               | NE<br>TX | Plant Protection<br>App. Duration: 3 years            |
| <b>IS-3633-04R</b><br>3490       | <b>Biocomplexity and Selective modulation of whitefly symbiont composition</b><br>Zchori-Fein, E.<br>Brown, J.K.<br>Katzir, N.  | ARO, Min. Ag.<br>U Arizona<br>ARO, Min. Ag.             | AZ       | Plant Protection<br>App. Duration: 1 year             |
| <b>IS-3634-04C</b><br>2978       | <b>Molecular characterisation of PBAN-receptors: a basis for the development and screening of antagonists against Pheromone biosynthesis in moth pest species</b><br>Rafaeli, A.<br>Jurenka, R.A.<br>Sander, C. | ARO, Min. Ag.<br>Iowa St. U<br>Sloan Kettering          | IA<br>NY | Plant Protection<br>App. Duration: 3 years            |
| <b>IS-3636-04</b>                | <b>The role of nitrogen-fixing bacteria in survival and reproductive success of <i>Ceratitis capitata</i>, the Mediterranean fruit fly</b><br>Jurkevitch, E.<br>Lauzon, C.R.<br>Yuval, B.<br>MacCombs, S.D.     | Hebrew U<br>CA State U<br>Hebrew U<br>USDA, ARS         | CA<br>HI | Plant Protection<br>App. Duration: 1 year             |
| <b>IS-3645-04</b>                | <b>Study of the regulatory mechanism involved in dark-induced Postharvest leaf senescence</b><br>Lers, A.<br>Susheng, G.  | ARO, Min. Ag.<br>Cornell U                              | NY       | Postharvest<br>App. Duration: 3 years                 |
| <b>IS-3647-04CR</b><br>1644 3498 | <b>Improvement of quality and nutritional value of muscle foods</b><br>Kanner, J.<br>Richards, M.P.<br>Kohen, R.<br>Reed, J.D.  | ARO, Min. Ag.<br>U Wisconsin<br>Hebrew U<br>U Wisconsin | WI<br>WI | Postharvest<br>App. Duration: 3 years                 |

|                    |   |  |                                  |
|--------------------|---|--|----------------------------------|
| <b>US-3655-04R</b> | <b>Entrapment and controlled release of nutraceuticals from double emulsions stabilized by pectin-protein hybrids</b>   |  | Postharvest                      |
| 3505               | Wicker, L.<br>Garti, N.   | U Georgia<br>Hebrew U  | GA                               |
|                    |   |  | App. Duration: 3 years           |
| <b>IS-3656-05R</b> | <b>Novel Herbicide Formulations for Conservation-Tillage</b>  |  | Ag. & the Environment            |
| 3378               | Assouline, S.<br>Potter, T.<br>Wauchope, R.D.<br>Bosch, D.D.<br>Strickland, T.<br>Truman, C.T.<br>Webster, T.<br>Gerstl, Z.<br>Rubin, B.<br>Nir, S.<br>Mishael, Y.G.<br>Tal, A. | ARO, Min. Ag.<br>USDA, ARS<br>USDA, ARS<br>USDA, ARS<br>USDA, ARS<br>USDA, ARS<br>USDA, ARS<br>ARO, Min. Ag.<br>Hebrew U<br>Hebrew U<br>Hebrew U<br>Hebrew U | GA<br>GA<br>GA<br>GA<br>GA<br>GA |
|                    |   |  | App. Duration: 3 years           |
| <b>US-3662-05R</b> | <b>Multi-Dimensional Infiltration and Distribution of Water of Different Qualities and Solutes Related Through Artificial Neural Networks</b>                                   |  | Ag. & the Environment            |
| 3515               | Warrick, A.W.<br>Oron, G.<br>Poulton, M.<br>Wallach, R.<br>Furman, A.   | U Arizona<br>Ben Gurion U<br>U Arizona<br>Hebrew U<br>Technion   | AZ<br>AZ                         |
|                    |   |  | App. Duration: 3 years           |
| <b>IS-3673-05C</b> | <b>Identification and Characterization of <i>Mycobacterium paratuberculosis</i> Virulence Genes Expressed in vivo by Negative Selection</b>                                     |  | Animal Health                    |
| 3413               | Shpigel, N.Y.<br>Barletta, R.G.<br>Rosenshine, I.   | Hebrew U<br>U Nebraska<br>Hebrew U   | NE                               |
|                    |   |  | App. Duration: 3 years           |
| <b>IS-3678-05R</b> | <b>A Novel Immunotherapeutic Agent for the Treatment and Prevention of Staphylococcal Mastitis in Dairy Cows</b>  |  | Animal Health                    |
| 3533               | Leitner, G.<br>Balaban, N.<br>Saperstein, G.<br>Saran, A.   | Isr. Vet. Inst.<br>Tufts U<br>Tufts U<br>Isr. Vet. Inst.   | MA<br>MA                         |
|                    |   |  | App. Duration: 3 years           |
| <b>IS-3679-05</b>  | <b>Avian Influenza Virus H9N2: Characterization and Control Strategies</b>  |  | Animal Health                    |
|                    | Perk, S.<br>Garcia, M.<br>Panshin, A.<br>Banet-Noach, C.<br>Gissin, I.<br>Jackwood, M.W.<br>Stallknecht, D.   | Isr. Vet. Inst.<br>U Georgia<br>Isr. Vet. Inst.<br>Isr. Vet. Inst.<br>Isr. Vet. Inst.<br>U Georgia<br>U Georgia  | GA<br>GA<br>GA                   |
|                    |   |  | App. Duration: 1 year            |
| <b>IS-3682-05</b>  | <b>Generation of Avian Pneumovirus Modified Clones for the Development of Attenuated Vaccines</b>   |  | Animal Health                    |
|                    | Bacharach, E.<br>Goyal, S.M.  | Tel Aviv U<br>U Minnesota  | MN                               |
|                    |   |  | App. Duration: 3 years           |

|                    |  |                          |
|--------------------|--|--------------------------|
| <b>US-3694-05R</b> | <b>Energy Expenditure for Activity in Free Ranging Ruminants: A Nutritional Frontier</b>                                       | Animal Production        |
| 3549               |  | App. Duration: 3 years   |
|                    | Goetsch, A.L. Langston U   | OK                       |
|                    | Aharoni, Y. ARO, Min. Ag.  |                          |
|                    | Brosh, A. ARO, Min. Ag.  |                          |
|                    | Puchala, R. Langston U   | OK                       |
|                    | Gipson, A. Langston U  | OK                       |
|                    | Henkin, Z. MIGAL R&D   |                          |
|                    | Ungar, E.D. ARO, Min. Ag.  |                          |
|                    | Dolev, A. MIGAL R&D  |                          |
| <b>IS-3703-05</b>  | <b>Interactions Between the GH-IGF axis and Myostatin in Regulating Muscle Growth in Sparus aurata</b>                         | Aquaculture              |
|                    |  | App. Duration: 3 years   |
|                    | Funkenstein, B. Isr. Ocean. Res.   |                          |
|                    | Du, J.S-J. UMD Marine BioTech  | MD                       |
| <b>IS-3712-05</b>  | <b>Development of Agricultural Sensors Based on Conductive Polymers</b>  | Bioengineering & Sensors |
|                    |  | App. Duration: 1 year    |
|                    | Bendikov, M. Weizmann Inst.  |                          |
|                    | Harmon, T.C. UCA, Merced   | CA                       |
| <b>US-3715-05</b>  | <b>Enhancement of Sensing Technologies for Selective Tree Fruit Identification and Targeting in Robotic Harvesting Systems</b> | Bioengineering & Sensors |
|                    |  | App. Duration: 3 years   |
|                    | Burks, F. U Florida  | FL                       |
|                    | Alchanatis, V. ARO, Min. Ag.   |                          |
|                    | Dixon, W. U Florida  | FL                       |
|                    | Levi, O. Ben Gurion U  |                          |
| <b>IS-3721-05R</b> | <b>Remote Sensing of Crop Physiological Parameters for Improved Nitrogen Management in Semi-Arid Wheat Production Systems</b>  | Field Crops & Hort.      |
| 3588               |  | App. Duration: 3 years   |
|                    | Bonfil, D.J. ARO, Min. Ag.   |                          |
|                    | Long, D.S. USDA, ARS   | OR                       |
|                    | Cohen, Y. ARO, Min. Ag.  |                          |
| <b>IS-3723-05</b>  | <b>Enhancing the Rate of Meiotic Crossing-Over for Plant Breeding</b>  | Field Crops & Hort.      |
|                    |  | App. Duration: 3 years   |
|                    | Levy, A.A. Weizmann Inst.  |                          |
|                    | Weil, C. F. Purdue   | IN                       |
|                    | Pawlowski, P. Cornell U  | NY                       |
| <b>IS-3733-05R</b> | <b>Increasing Starch Accumulation via Genetic Modification of the ADP-glucose Pyrophosphorylase</b>                            | Field Crops & Hort.      |
| 3596               |  | App. Duration: 3 years   |
|                    | Schaffer, A.A. ARO, Min. Ag.   |                          |
|                    | Preiss, J. Michigan St. U  | MI                       |
|                    | Petreikov, M. ARO, Min. Ag.  |                          |
|                    | Levin, I. ARO, Min. Ag.  |                          |
| <b>US-3735-05C</b> | <b>Ethylene Mediated Regulation of Cucumis Reproduction - from Sex Expression to Fruit Set</b>                                 | Field Crops & Hort.      |
| 3139               |  | App. Duration: 3 years   |
|                    | Grumet, R. Michigan St. U  | MI                       |
|                    | Perl-Treves, R. Bar Ilan U   |                          |
|                    | Staub, J.E. USDA, ARS  | WI                       |

|                    |   |                             |
|--------------------|---|-----------------------------|
| <b>IS-3738-05R</b> | <b>Molecular Identification and Characterization of Heat-Stress-Responsive Microgametogenesis Genes in Tomato and Sorghum - A Feasibility Study</b> | Field Crops & Hort.         |
| 3577               |   | App. Duration: 1 year       |
|                    | Firon, N. ARO, Min. Ag.   |                             |
|                    | Chourey, P.S. USDA, ARS   | FL                          |
|                    | Pressman, E. ARO, Min. Ag.  |                             |
|                    | Hartwell, A.L. USDA, ARS  | FL                          |
|                    | Boote, K.J. U Florida   | FL                          |
| <b>US-3746-05R</b> | <b>Structural and Functional Genomic Approaches for Marking and Identifying Genes that Control Chilling Requirement in Apricot and Peach Trees</b>  | Field Crops & Hort.         |
| 3584               |   | App. Duration: 3 years      |
|                    | Abbott, A.G. Clemson U  | SC                          |
|                    | Holland, D. ARO, Min. Ag.   |                             |
|                    | Bielenberg, D.G. Clemson U  | SC                          |
|                    | Reighard, L. Clemson U  | SC                          |
| <b>US-3756-05</b>  | <b>Mechanism of Internal Initiation of Translation in Plants</b>  | Model System & Funct. Biol. |
|                    |   | App. Duration: 3 years      |
|                    | Belostotsky, D.A. U Missouri - KC   | MO                          |
|                    | Elroy-Stein, O. Tel Aviv U  |                             |
| <b>IS-3764-05</b>  | <b>Nuclear Encoded RNA Splicing Factors in Plant Mitochondria</b>   | Model System & Funct. Biol. |
|                    |   | App. Duration: 3 years      |
|                    | Ostersetzer, O. ARO, Min. Ag.   |                             |
|                    | Barkan, A. U Oregon   | OR                          |
| <b>IS-3767-05C</b> | <b>Harnessing Fine Scale Tuning of Endogenous Plant Regulatory Processes for Manipulation of Organ Growth</b>                                       | Model System & Funct. Biol. |
| 3328               |   | App. Duration: 3 years      |
|                    | Eshed, Y. Weizmann Inst.  |                             |
|                    | Bowman, J.L. UC, Davis  | CA                          |
| <b>US-3774-05C</b> | <b>Gene Expression Patterns in Plants Colonized with Pathogenic and Non-pathogenic Gene Disruption Mutants of Colletotrichum</b>                    | Plant Protection            |
| 3260               |   | App. Duration: 3 years      |
|                    | Rodriguez, R.J. U Washington  | WA                          |
|                    | Freeman, S. ARO, Min. Ag.   |                             |
| <b>IS-3783-05C</b> | <b>Potentialiation of Pest Control by Insect Immunosuppression</b>  | Plant Protection            |
| 3357               |   | App. Duration: 3 years      |
|                    | Chejanovsky, N. ARO, Min. Ag.   |                             |
|                    | Webb, B.A. U Kentucky   | KY                          |
| <b>IS-3784-05</b>  | <b>Role of RNA Silencing Suppression in the Pathogenicity and Host Specificity of the Grapevine Virus A</b>   | Plant Protection            |
|                    |   | App. Duration: 3 years      |
|                    | Mawassi, M. ARO, Min. Ag.   |                             |
|                    | Dolja, V.V. Oregon St. U  | OR                          |
| <b>IS-3785-05C</b> | <b>Role of GRAS Transcription Factors in Tomato Disease Resistance and Basal Defense</b>  | Plant Protection            |
| 3237               |   | App. Duration: 3 years      |
|                    | Sessa, G. Tel Aviv U  |                             |
|                    | Martin, G.B. Boyce Thompson   | NY                          |

|                    |   |                        |
|--------------------|---|------------------------|
| <b>US-3789-05R</b> | <b>Genetically Engineered Microbial Agents for Biocontrol of Plant Fungal Diseases</b>  | Plant Protection       |
| 3617               |   | App. Duration: 3 years |
|                    | Thomashow, L.S.      USDA, ARS      WA  |                        |
|                    | Chernin, L.          Hebrew U   |                        |
|                    | Chet, I.              Weizmann Inst.  |                        |
|                    | Weller, D.          USDA, ARS      WA   |                        |
|                    | Mavrodi, D.V.      WA State U      WA   |                        |
| <b>IS-3793-05</b>  | <b>Secondary Metabolites, Stress, and Signaling: Roles and Regulation of Peptides Produced by Non-ribosomal Peptide Synthetases</b>               | Plant Protection       |
|                    |   | App. Duration: 3 years |
|                    | Horwitz, B.A.      Technion   |                        |
|                    | Turgeon, B.G.      Cornell U          NY  |                        |
| <b>IS-3802-05</b>  | <b>A Novel Approach to Mycotoxin Detoxification in Farm Animals Using Probiotics Added to Feed Stuff</b>  | Postharvest            |
|                    |   | App. Duration: 3 years |
|                    | Shapira, R.          Hebrew U   |                        |
|                    | Grizzle, J.M.      U Tennessee      TN  |                        |
|                    | Paster, N.          ARO, Min. Ag.   |                        |
|                    | Pines, M.          ARO, Min. Ag.  |                        |
|                    | Mendis-Handagama, C.      U Tennessee      TN   |                        |
| <b>IS-3803-05</b>  | <b>Unravelling the Mode of Action of Ripening-Specific MADS-box Genes for Development of Tools to Improve Banana Fruit Shelf-life and Quality</b> | Postharvest            |
|                    |   | App. Duration: 3 years |
|                    | Friedman, H.      ARO, Min. Ag.   |                        |
|                    | Vrebalov, J.      Boyce Thompson      NY  |                        |
|                    | Giovannoni, J.      Boyce Thompson      NY  |                        |
|                    | Pesis, E.          ARO, Min. Ag.  |                        |
| <b>IS-3815-05</b>  | <b>Molecular Studies of Postharvest Leaf and Flower Abscission</b>  | Postharvest            |
|                    |   | App. Duration: 1 year  |
|                    | Meir, S.            ARO, Min. Ag.   |                        |
|                    | Reid, M.S.          UC, Davis          CA   |                        |
|                    | Jiang, C.          UC, Davis          CA  |                        |
|                    | Lers, A.            ARO, Min. Ag.   |                        |
|                    | Philosoph-Hadas, S.      ARO, Min. Ag.  |                        |
| <b>IS-3822-06</b>  | <b>Sorption and Mobility of Pharmaceutical Compounds in Soils Irrigated with Treated Wastewater</b>   | Ag. & the Environment  |
|                    |   | App. Duration: 3 years |
|                    | Chefetz, B.          Hebrew U   |                        |
|                    | Chorover, J.      U Arizona          AZ   |                        |
| <b>IS-3823-06</b>  | <b>Soil Environmental Effects on Root Growth and Uptake Dynamics for Irrigated Systems</b>  | Ag. & the Environment  |
|                    |   | App. Duration: 3 years |
|                    | Furman, A.          Technion  |                        |
|                    | Hopmans, J.W.      UC, Davis          CA  |                        |
|                    | Assouline, S.      ARO, Min. Ag.  |                        |
|                    | Simunek, J.          UC, Riverside      CA  |                        |
|                    | Richards, J.H.      UC, Davis          CA   |                        |

|                    |   |  |
|--------------------|---|--|
| <b>IS-3826-06</b>  | <b>Root Conductance, Root-soil Interface Water Potential, Water and Ion Channel Function, and Tissue Expression Profile as Affected by Environmental Conditions</b> | Ag. & the Environment<br>App. Duration: 1 year     |
|                    | Shani, U. Hebrew U  |  |
|                    | Dudley, L.M. Florida St. U  | FL   |
|                    | Ben-Gal, A. ARO, Min. Ag.   |  |
|                    | Moshelion, M. Hebrew U  |  |
|                    | Wu, Y. Utah St U  | UT   |
| <b>US-3829-06R</b> | <b>Microarray Analysis of <i>Brucella melitensis</i> Pathogenesis</b>   | Animal Health<br>App. Duration: 3 years            |
| 3675               | Splitter, G.A. U Wisconsin  | WI   |
|                    | Banai, M. Isr. Vet. Inst.   |  |
| <b>IS-3836-06R</b> | <b>Pre-natal Epigenetic Adaptation to Improve Thermotolerance Acquisition and Performance of Fast-growing Meat-type Chickens</b>                                    | Animal Production<br>App. Duration: 3 years        |
| 3688               | Yahav, S. ARO, Min. Ag.   |  |
|                    | Brake, J.T. N Carolina St. U  | NC   |
|                    | Halevy, O. Hebrew U   |  |
| <b>IS-3837-06R</b> | <b>Translational Mechanisms Governing Milk Protein Levels and Composition</b>   | Animal Production<br>App. Duration: 3 years        |
| 3691               | Barash, I. ARO, Min. Ag.  |  |
|                    | Rhoads, R.E. LSU Health Sciences Center   | LA   |
| <b>IS-3853-06R</b> | <b>Production of Seed Stocks for Sustainable Tank Cultivation of the Red Edible Seaweed Porphyra</b>  | Aquaculture<br>App. Duration: 3 years              |
| 3707               | Israel, A. Isr. Ocean. Res.   |  |
|                    | Merrill, J.E. Michigan St. U  | MI   |
| <b>IS-3861-06</b>  | <b>Application of Turbulent Transport Techniques for Quantifying Whole Canopy Evapotranspiration in Large Agricultural Structures: Measurement and Theory</b>       | Bioengineering & Sensors<br>App. Duration: 3 years |
|                    | Tanny, J. ARO, Min. Ag.   |  |
|                    | Katul, G. Duke U  | NC   |
|                    | Cohen, S. ARO, Min. Ag.   |  |
|                    | Teitel, M. ARO, Min. Ag.  |  |
| <b>IS-3864-06</b>  | <b>A Whole-Cell Biosensor Panel for Agricultural Endocrine Disruptors</b>   | Bioengineering & Sensors<br>App. Duration: 3 years |
|                    | Belkin, S. Hebrew U   |  |
|                    | Daunert, S. U Kentucky  | KY   |
|                    | Wells, M.C. Tenn. Tech. U   | TN   |
| <b>IS-3869-06</b>  | <b>Tomato Natural Insecticides: Elucidation of the Complex Pathway of Methylketone Biosynthesis</b>   | Field Crops & Hort.<br>App. Duration: 3 years      |
|                    | Fridman, E. Hebrew U  |  |
|                    | Pichersky, E. U Michigan  | MI   |

|   |   |   |
|---|---|---|
| <b>US-3870-06C</b><br>3034                            | <b>Integrative Physical and Genetic Mapping of the Chickpea Genome for Fine Mapping and Analysis of Agronomic Traits</b>                      | Field Crops & Hort.<br>App. Duration: 3 years         |
|   | Zhang, H.                      Texas A&M  | TX  |
|   | Abbo, S.                        Hebrew U  |   |
|   | Chen, W.                        USDA, ARS   | WA  |
|   | Sherman, A.                    ARO, Min. Ag.  |   |
|   | Shtienberg, D.                ARO, Min. Ag.   |   |
|   | Muehlbauer, F.J.              USDA, ARS   | WA  |
| <b>US-3873-06</b>                                     | <b>Building Consensus Genetic Maps for Maize and Wheat</b>  | Field Crops & Hort.<br>App. Duration: 3 years         |
|   | Schnable, P.S.                Iowa St. U  | IA  |
|   | Ronin, Y.I.                     U Haifa   |   |
|   | Aluru, S.                        Iowa St. U   | IA  |
|   | Mester, I.D.                    U Haifa   |   |
| <b>IS-3877-06CR</b><br>3333                      3736 | <b>Genomic Approach to the Improvement of Fruit Quality in Melon (<i>Cucumis melo</i>) and Related Cucurbit Crops II: Functional Genomics</b> | Field Crops & Hort.<br>App. Duration: 3 years         |
|   | Katzir, N.                        ARO, Min. Ag.   |   |
|   | Giovannoni, J.                Boyce Thompson  | NY  |
|   | Binzel, M.L.                    Texas A&M   | TX  |
|   | Lewinsohn, E.                 ARO, Min. Ag.   |   |
|   | Burger, Y.                      ARO, Min. Ag.   |   |
|   | Schaffer, A.A.                 ARO, Min. Ag.  |   |
| <b>IS-3884-06</b>                                     | <b>Plasticity in the Mechanisms of Phloem Loading</b>   | Field Crops & Hort.<br>App. Duration: 3 years         |
|   | Wolf, S.                         Hebrew U   |   |
|   | Turgeon, R.                    Cornell U  | NY  |
| <b>IS-3886-06R</b><br>3595                            | <b>Molecular Analyses of Soma-clonal Variation in Date Palm and Banana for Early Identification and Control of Off-types Generation</b>       | Field Crops & Hort.<br>App. Duration: 3 years         |
|   | Cohen, Y.                        ARO, Min. Ag.  |   |
|   | Cullis, C.A.                    Case Western  | OH  |
|   | Lavi, U.                         ARO, Min. Ag.  |   |
| <b>US-3896-06</b>                                     | <b>The Role of Serine/Threonine O-GlcNAc Modifications in Signaling Networks</b>  | Model System & Funct. Biol.<br>App. Duration: 3 years |
|   | Olszewski, N.E.                U Minnesota  | MN  |
|   | Weiss, D.                        Hebrew U   |   |
| <b>IS-3897-06</b>                                     | <b>Role of Fructokinases in the Development and Function of the Vascular System</b>   | Model System & Funct. Biol.<br>App. Duration: 3 years |
|   | Granot, D.                      ARO, Min. Ag.   |   |
|   | Holbrook, N.M                Harvard U  | MA  |
| <b>IS-3901-06C</b><br>3451                            | <b>eIF3 Complexes and the eIF3e Subunit in <i>Arabidopsis</i> Development and Translation Initiation</b>                                      | Model System & Funct. Biol.<br>App. Duration: 3 years |
|   | Chaimovitz, A.D.              Tel Aviv U  |   |
|   | Von Arnim, A.G.               U Tennessee   | TN  |

|                     |   |   |
|---------------------|---|---|
| US-3910-06          | <b>Genetic, Genomic and Biochemical Analysis of <i>Arabidopsis Threonine Aldolase</i> and Associated Molecular and Metabolic Networks</b>                                     | Model System & Funct. Biol.<br>App. Duration: 3 years |
|                     | Jander, G. Boyce Thompson<br>Galili, G. Weizmann Inst.<br>Shachar-Hill, Y. Michigan St. U   | NY<br>MI  |
| US-3917-06C<br>3347 | <b>Suppression of RNA Silencing by TYLCV During Viral Infection</b>   | Plant Protection<br>App. Duration: 3 years            |
|                     | Citovsky, V. NYSU, Stony Brook<br>Gafni, Y. ARO, Min. Ag.   | NY  |
| IS-3922-06R<br>3771 | <b>A Functional Genomics Approach to Identify Signaling Components Involved in Defense Responses Induced by the Ethylene Inducing Xyalanase Elicitor</b>                      | Plant Protection<br>App. Duration: 3 years            |
|                     | Avni, A. Tel Aviv U<br>Mysore, K.S. Noble Foundation  | OK  |
| IS-3928-06          | <b>Learning from Nature How to Design Anti-insect Selective Pesticides - Clarification of the Interacting Face between Insecticidal Toxins and their Na-channel Receptors</b> | Plant Protection<br>App. Duration: 3 years            |
|                     | Gurevitz, M. Tel Aviv U<br>Catterall, W.A. U Washington<br>Gordon, D. Tel Aviv U  | WA  |
| US-3929-06          | <b>Elucidating the Functions of Type III Effectors from Necrogenic and Tumorigenic Bacterial Pathogens</b>  | Plant Protection<br>App. Duration: 1 year             |
|                     | Alfano, J.R. U Nebraska<br>Barash, I. Tel Aviv U<br>Clemente, T. U Nebraska<br>Staswick, P.E. U Nebraska<br>Sessa, G. Tel Aviv U<br>Manulis, S. ARO, Min. Ag.                 | NE<br>NE<br>NE  |
| IS-3930-06R<br>3787 | <b>Geminivirus-resistant Tomato Plants: Combining Transgenic and Conventional Strategies for Multi-viral Resistance</b>   | Plant Protection<br>App. Duration: 3 years            |
|                     | Lapidot, M. ARO, Min. Ag.<br>Hanley-Bowdoin, L. N Carolina St. U<br>Polston, J.E. U Florida   | NC<br>FL  |
| IS-3934-06C<br>3636 | <b>Bacteria - Medfly Interactions: a Spatial, Temporal and Functional Study</b>   | Plant Protection<br>App. Duration: 3 years            |
|                     | Jurkevitch, E. Hebrew U<br>Lauzon, C.R. CA State U<br>Yuval, B. Hebrew U<br>McCombs, S.D. USDA, ARS   | CA<br>HI  |
| IS-3945-06R<br>3807 | <b>Host Ammonification by Postharvest Pathogens and its Contribution to Fungal Colonization and Symptom Development</b>   | Postharvest<br>App. Duration: 3 years                 |
|                     | Prusky, D.B. ARO, Min. Ag.<br>Vaillancourt, L.J. U Kentucky<br>Fluhr, R. Weizmann Inst.   | KY  |

|                    |  |   |
|--------------------|--|---|
| <b>IS-3947-06</b>  | <b>Identification of Genetic Determinants that Facilitate Development of <i>B. cinerea</i> at Low Temperature and its Postharvest Pathogenicity</b>  | Postharvest<br>App. Duration: 3 years           |
|                    | Lichter, A. ARO, Min. Ag.<br>Davis, M.R. U Alabama<br>Podila, G.K. U Alabama   | AL<br>AL  |
| <b>US-3949-06</b>  | <b><i>Salmonella enterica</i> Interactions with Fresh Produce</b>  | Postharvest<br>App. Duration: 3 years           |
|                    | Brandl, M.T. USDA, ARS<br>Sela, S. ARO, Min. Ag.<br>Parker, C. USDA, ARS<br>Rodov, V. ARO, Min. Ag.  | CA<br>CA  |
| <b>IS-3962-07</b>  | <b>Unstable Flow in Repellent and Sub-critically Repellent Soils: Theory and Management Implications</b>   | Ag. & the Environment<br>App. Duration: 3 years |
|                    | Wallach, R. Hebrew U<br>Steenhuis, T. Cornell U<br>Graber, E.R. ARO, Min. Ag.<br>DiCarlo, D. U Texas<br>Parlange, J.Y. Cornell U   | NY<br>TX<br>NY                                  |
| <b>IS-3963-07</b>  | <b>The Fate of Phosphorus Originated from Treated Wastewater and Biosolids in Soils: Speciation, Transport, and Accumulation</b>   | Ag. & the Environment<br>App. Duration: 3 years |
|                    | Shenker, M. Hebrew U<br>Bloom, P.R. U Minnesota<br>Shaviv, A.G. Technion<br>Paytan, A. UCA, Santa Cruz<br>Cade-Menun, B. Stanford U<br>Chen, Y. Hebrew U<br>Tarchitzky, J. Isr. Min. Agr.  | MN<br>CA<br>CA                                  |
| <b>IS-3979-07</b>  | <b>Replication Defective Cyprinid Herpes Virus-3 (CyHV-3) as a Combined Prophylactic Vaccine in Carps</b>  | Animal Health<br>App. Duration: 3 years         |
|                    | Kotler, M. Hebrew U<br>Hanson, L. Missi. St U<br>Burgess, S.C. Missi. St U   | MS<br>MS  |
| <b>US-3986-07</b>  | <b>Use of Oocyte and Embryo Survival Factors to Enhance Fertility of Heat-stressed Dairy Cattle</b>  | Animal Production<br>App. Duration: 3 years     |
|                    | Hansen, P.J. U Florida<br>Roth, Z. Hebrew U  | FL  |
| <b>IS-3987-07R</b> | <b>Deciphering the Luteal Transcriptome: Insights into the Mechanisms Regulating Corpus Luteum Regression</b>  | Animal Production<br>App. Duration: 3 years     |
| 3841               | Meidan, R. Hebrew U<br>Smith, G.W. Michigan St. U  | MI  |
| <b>IS-3988-07R</b> | <b>Enhancing Sustainability of Cattle Production Systems through Discovery of Biomarkers for Feed Efficiency</b>   | Animal Production<br>App. Duration: 3 years     |
| 3695               | Brosh, A. ARO, Min. Ag.<br>Carstens, G.E. TX AgriLife Res<br>Johnson, A. WA State U<br>Shabtay, A. ARO, Min. Ag.<br>Miron, J. ARO, Min. Ag.<br>Aharoni, Y. ARO, Min. Ag.<br>Tedeschi, L. TX AgriLife Res<br>Halachmi, I. ARO, Min. Ag. | TX<br>WA<br>TX                                  |

|                            |  |  |
|----------------------------|--|--|
| <b>IS-3995-07C</b><br>3561 | <b>Molecular Mechanisms of Sex Determination in Cultured Tilapias</b>  | Aquaculture<br>App. Duration: 3 years              |
|                            | Hulata, G. ARO, Min. Ag.<br>Kocher, T.D. U Maryland MD<br>Ron, M. ARO, Min. Ag.<br>Seroussi, E. ARO, Min. Ag.  |  |
| <b>IS-3997-07</b>          | <b>Genetic Basis of Cyprinid Herpes Virus-3 Resistance in Common Carp</b>  | Aquaculture<br>App. Duration: 3 years              |
|                            | David, L. Hebrew U<br>Palti, Y. USDA, ARS WV<br>Kotler, M. Hebrew U<br>Hulata, G. ARO, Min. Ag.<br>Hallerman, E. M. Virginia Polytech VA                           |  |
| <b>US-3999-07</b>          | <b>Simultaneous Treatment of Odorants and Pathogens Emitted from Confined Animal Feeding Operations (CAFOs) by Advanced Oxidation Technologies</b>                 | Bioengineering & Sensors<br>App. Duration: 1 year  |
|                            | Koziel, A.J. Iowa St. U IA<br>Laor, Y. ARO, Min. Ag.<br>Zimmerman, J.J. Iowa St. U IA<br>Armon, R. Technion<br>Hoff, S.J. Iowa St. U IA<br>Ravid, U. ARO, Min. Ag. |  |
| <b>IS-4002-07C</b><br>3712 | <b>Development of Agricultural Sensors Based on Conductive Polymers</b>  | Ag. & the Environment<br>App. Duration: 3 years    |
|                            | Bendikov, M. Weizmann Inst.<br>Harmon, T.C. UCA, Merced CA   |  |
| <b>IS-4005-07R</b><br>3863 | <b>Developing Simulation Tool for the Prediction of Cohesive Behavior Agricultural Materials Using Discrete Element Modeling</b>                                   | Bioengineering & Sensors<br>App. Duration: 3 years |
|                            | Shmulevich, I.E. Technion<br>Upadhyaya, S.K. UC, Davis CA<br>Rubinstein, D. Technion<br>Asaf, Z. Technion<br>Mitchell, J.P. UC, Davis CA                           |  |
| <b>US-4010-07C</b><br>3575 | <b>Sugar and Acid Homeostasis in Citrus Fruit</b>  | Field Crops & Hort.<br>App. Duration: 3 years      |
|                            | Blumwald, E. UC, Davis CA<br>Sadka, A. ARO, Min. Ag.   |  |
| <b>IS-4012-07</b>          | <b>Regulation of Tomato Fruit Development by Interacting MYB Proteins</b>  | Field Crops & Hort.<br>App. Duration: 3 years      |
|                            | Barg, R. ARO, Min. Ag.<br>Grotewold, E. Ohio St. U OH<br>Salts, Y. ARO, Min. Ag.   |  |
| <b>US-4015-07</b>          | <b>Molecular and Anatomical Characterization of Sweetpotato Storage Root Formation</b>   | Field Crops & Hort.<br>App. Duration: 3 years      |
|                            | LaBonte, D.R. Louisiana St. U LA<br>Pressman, E. ARO, Min. Ag.<br>Firon, N. ARO, Min. Ag.<br>Villordon, A. Louisiana St. U LA                                      |  |

|                    |  |  |   |
|--------------------|--|--|---|
| <b>IS-4017-07</b>  | <b>Role of Polyploidy in Vine Cacti Speciation and Crop Domestication</b>  |  | Field Crops & Hort.<br>App. Duration: 3 years         |
|                    | Tel-Zur, N.<br>Doyle, J.   | Ben Gurion U<br>Cornell U  | NY  |
| <b>IS-4018-07R</b> | <b>Characterization and Manipulation of the Primary Components in Gibberellin Signaling in the Grape Berry</b>   |  | Field Crops & Hort.<br>App. Duration: 3 years         |
| 3881               | Or, E.<br>Sun, T.P.<br>Lichter, A.<br>Perl, A.   | ARO, Min. Ag.<br>Duke U<br>ARO, Min. Ag.<br>ARO, Min. Ag.                          | NC  |
| <b>US-4024-07</b>  | <b>Map-based Cloning of High-temperature Adult Plant Stripe Rust Resistance Gene Yr36 from Wheat</b>   |  | Field Crops & Hort.<br>App. Duration: 3 years         |
|                    | Dubcovsky, J.<br>Fahima, T.<br>Blechl, A.E.<br>SanMiguel, P.   | UC, Davis<br>U Haifa<br>USDA, ARS<br>Purdue  | CA<br>CA<br>IN  |
| <b>US-4027-07</b>  | <b>A Biological Systems Approach to Developing Mealiness-free Peach and Nectarine Fruit</b>  |  | Postharvest<br>App. Duration: 3 years                 |
|                    | Crisosto, C.<br>Lurie, S.<br>Friedman, H.<br>Ogundiwin, E.<br>Peace, C.<br>Manganaris, G.  | UC, Davis<br>ARO, Min. Ag.<br>ARO, Min. Ag.<br>UC, Davis<br>UC, Davis<br>UC, Davis | CA<br>CA<br>CA<br>CA<br>CA                            |
| <b>IS-4030-07R</b> | <b>The Molecular and <i>in vivo</i> Functions of the Chloroplast Chaperonins</b>   |  | Model System & Funct. Biol.<br>App. Duration: 3 years |
| 3906               | Azem, A.<br>Lorimer, G.H.<br>Breiman, A.   | Tel Aviv U<br>U Maryland<br>Tel Aviv U   | MD  |
| <b>IS-4032-07</b>  | <b>Elucidating Mechanisms that Connect Activation of ROP GTPases, Membrane Dynamics and Signaling in Cell Growth and Stress Responses</b>  |  | Model System & Funct. Biol.<br>App. Duration: 3 years |
|                    | Yalovsky, S.<br>McCormick, S.M.  | Tel Aviv U<br>USDA, ARS  | CA  |
| <b>IS-4033-07</b>  | <b>MicroRNA Targeted Transcription Factors for Fruit Quality Improvement</b>   |  | Model System & Funct. Biol.<br>App. Duration: 1 year  |
|                    | Arazi, T.<br>Irish, V.F.<br>Aharoni, A.  | ARO, Min. Ag.<br>Yale<br>Weizmann Inst.  | CT  |
| <b>IS-4038-07</b>  | <b>Studies of Novel Cytoskeletal Regulatory Proteins that are Involved in Abiotic Stress Signaling.</b>  |  | Model System & Funct. Biol.<br>App. Duration: 3 years |
|                    | Sadot, E.<br>Staiger, C.J.<br>Abu-Abied, M.  | ARO, Min. Ag.<br>Purdue<br>ARO, Min. Ag.   | IN  |
| <b>US-4041-07C</b> | <b>Modulation of the Redox Climate and Phosphatase Signaling in a Necrotroph: an Axis for Inter- and Intra-cellular Communication that Regulates Development and Pathogenicity</b> |  | Plant Protection<br>App. Duration: 3 years            |
| 3624               | Dickman, M.B.<br>Yarden, O.  | TX AgriLife Res<br>Hebrew U  | TX  |

|                            |  |  |
|----------------------------|--|--|
| <b>IS-4047-07</b>          | <b>Molecular Interactions of <i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i> with Tomato</b>  | Plant Protection<br>App. Duration: 3 years |
|                            | Manulis, S.                      ARO, Min. Ag.   |  |
|                            | Smart, C.D.                      Cornell U   | NY   |
|                            | Barash, I.                      Tel Aviv U   |  |
|                            | Sessa, G.                      Tel Aviv U  |  |
|                            | Hoch, H. C.                      NY Agr. Exp. St   | NY   |
| <b>US-4048-07R</b><br>3925 | <b>Characterization and Chemistry of Sexual Communication in Two Psyllid Pests of Pears (Homoptera: Psyllidae)</b>   | Plant Protection<br>App. Duration: 3 years |
|                            | Horton, D.R.                      USDA, ARS  | WA   |
|                            | Soroker, V.                      ARO, Min. Ag.   |  |
|                            | Landolt, P.J.                      USDA, ARS   | WA   |
|                            | Zada, A.                      ARO, Min. Ag.  |  |
| <b>IS-4062-07</b>          | <b>Dissection of Whitefly-geminivirus Interactions at the Transcriptomic, Proteomic and Cellular Levels</b>  | Plant Protection<br>App. Duration: 3 years |
|                            | Ghanim, M.                      ARO, Min. Ag.  |  |
|                            | Cicero, J.                      U Arizona  | AZ   |
|                            | Brown, J.K.                      U Arizona   | AZ   |
|                            | Czosnek, H.H.                      Hebrew U  |  |
| <b>IS-4066-07</b>          | <b>The Unexpected Specificity of a Sea Anemone Small Toxin for Insect Na-channels and its Synergic Effects with Various Insecticidal Ligands: A New Model to Mimic</b> | Plant Protection<br>App. Duration: 3 years |
|                            | Gordon, D.                      Tel Aviv U   |  |
|                            | Dong, K.E.                      Michigan St. U   | MI   |
|                            | Gurevitz, M.                      Tel Aviv U   |  |
| <b>IS-4067-07</b>          | <b>Genomic Approaches for Understanding Virulence and Resistance in the Sunflower-Orobanche Host-Parasite Interaction</b>  | Plant Protection<br>App. Duration: 3 years |
|                            | Joel, D.M.                      ARO, Min. Ag.  |  |
|                            | Knapp, S.                      U Georgia   | GA   |
|                            | Tadmor, Y.                      ARO, Min. Ag.  |  |
| <b>IS-4072-07R</b><br>3950 | <b>Do Saponins Present in Model Systems and Legume Bread Modulate Cholesterol Absorption <i>in vitro</i> and <i>in vivo</i>?</b>                                       | Postharvest<br>App. Duration: 3 years      |
|                            | Kerem, Z.                      Hebrew U  |  |
|                            | Vodovotz, Y.                      Ohio St. U   | OH   |
|                            | Bonfil, D.J.                      ARO, Min. Ag.  |  |
|                            | Schwartz, S.J.                      Ohio St. U   | OH   |
|                            | Failla, M.                      Ohio St. U   | OH   |
| <b>IS-4073-07C</b><br>3815 | <b>Molecular Studies of Postharvest Leaf and Flower Senescence</b>   | Postharvest<br>App. Duration: 3 years      |
|                            | Meir, S.                      ARO, Min. Ag.  |  |
|                            | Reid, M.S.                      UC, Davis  | CA   |
|                            | Jiang, C.                      UC, Davis   | CA   |
|                            | Lers, A.                      ARO, Min. Ag.  |  |
|                            | Philosoph-Hadas, S.                      ARO, Min. Ag.   |  |