

**BARD Approved Projects
Award Year 2021**

08/06/2021

US-5335-21	Developing mechanical harvesting and improving postharvest treatment of California and Israel's table olive (<i>Olea europaea L.</i>)	Agricultural Innovation & Engi App. Duration: 3 years
	Ehsani, R. UC, Merced CA Dag, A. ARO, Min. Ag. Ferguson, L. UC, Davis CA Fishman, A. Technion	
US-5336-21	Mitigation of clogging in drip-irrigation emitters: A hydrodynamic approach	Agricultural Innovation & Engi App. Duration: 3 years
	Sauret, A.O. UC, St.Barbara CA Ramon, G. Technion	
US-5343-21	Elucidating carp responses and virulence strategies during CyHV-3 infection of hosts with different susceptibility patterns	Animal Health App. Duration: 3 years
	* Gorgoglione, B. U Michigan St. MI David, D.L. Hebrew U	
IS-5354-21	Mitigation of off flavor in recirculating aquaculture systems	Animal Production App. Duration: 3 years
	Van Rijn, J. Hebrew U Davidson, J.W. Freshwater Inst. WV	
IS-5358-21	Elucidating and manipulating regulatory elements of the tilapia physiological response to extreme temperatures	Animal Production App. Duration: 3 years
	Cnaani, A. ARO, Min. Ag. Kueltz, D. UC, Davis CA * Biran, J. ARO, Min. Ag.	
US-5361-21	Understanding the Citrus tristeza virus interplay with plant immunity for disease control	Crop Health App. Duration: 1 year
	Folimonova, S.Y. U Florida FL Mawassi, M. ARO, Min. Ag.	
IS-5362-21CR 4931 5263	Tomato PP2C phosphatases: negative regulators of plant immunity and biotechnological tools for enhancement of disease resistance	Crop Health App. Duration: 3 years
	Sessa, G. Tel Aviv U Martin, G.B. Boyce Thompson NY	
IS-5386-21R 5271	Deciphering the resistance-breaking mechanism of Tomato brown rugose fruit virus	Crop Health App. Duration: 3 years
	* Spiegelman, Z. ARO, Min. Ag. Dinesh-Kumar, S.P. UC, Davis CA	
US-5389-21C 5029	Gene discovery through systems biology approaches to develop broad-spectrum antiviral strategies in crops	Crop Health App. Duration: 3 years
	Wang, X.F. Virginia Tech VA Schuldiner, M. Weizmann Inst.	

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US-5390-21	Adapting soil biosolarization to local by-products and low water inputs by harnessing the indigenous microbiome in lettuce crops	Crop Health App. Duration: 3 years
	Simmons, C. UC, Davis CA Freilich, S. ARO, Min. Ag. Stapleton, J.J. UC, ANR CA	
IS-5393-21	Wild plasmotype diversity for evolving and breeding abiotic stress resilience in barley	Crop Production App. Duration: 3 years
	Fridman, E. ARO, Min. Ag. CA Koenig, D. UC, Riverside CA Lenaghan, S. U Tennessee, Knoxville TN	
IS-5400-21	Leveraging genomics and temporal high-throughput phenotyping to enhance association mapping and yield prediction of sesame	Crop Production App. Duration: 3 years
	Peleg, Z. Hebrew U VA Morota, G. Virginia Tech VA * Herrmann, I. Hebrew U VA	
IS-5403-21CR 4822 5291	Elucidating the genes that are involved in the biosynthetic pathway of hydrolyzable tannins in pomegranate	Crop Production App. Duration: 3 years
	Amir, R. MIGAL R&D CA Tian, L. UC, Davis CA Holland, D. ARO, Min. Ag. CA	
IS-5430-21	Tree-based multilevel spatial decision support systems to close the yield gap in almond orchards	Environ/Water/Ren. Res. App. Duration: 3 years
	* Baram, S. ARO, Min. Ag. CA Jin, Y. UC, Davis CA * Paz-Kagan, T. ARO, Min. Ag. CA Brown, P.H. UC, Davis CA	
US-5434-21	Unraveling the biogeochemical mechanisms of drought and rewetting induced nitric and nitrous oxide emissions from dryland agriculture	Environ/Water/Ren. Res. App. Duration: 3 years
	* Saha, D. U Tennessee, Knoxville TN * Gelfand, I. Ben Gurion U TN Schaeffer, S.M. U Tennessee, Knoxville TN * Jagadamma, S.M. U Tennessee, Knoxville TN	
US-5439-21	Nutrient recovery in recirculating aquaculture systems: From waste to fertilizer	Environ/Water/Ren. Res. App. Duration: 3 years
	Sengupta, S. U of Mass at Dartmouth MA * Tal, S. Isr. Ocean. Res. * Yogev, U. Isr. Ocean. Res.	
IS-5443-21R 5298	Foliar fertilization with insoluble phosphate: exploration of chemical, structural, and microbial processes that facilitate P acquisition	Environ/Water/Ren. Res. App. Duration: 3 years
	* Erel, R. ARO, Min. Ag. CA Leveau, J. UC, Davis CA Gross, A. Ben Gurion U CA	

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IS-5444-21	Controlling postharvest fruit decay by antifungal defensin-like peptides	Food Product App. Duration: 3 years
	Alkan, N. ARO, Min. Ag. Shah, D. Danforth Center	MO
IS-5451-21	Leading the way to the future of gas chromatography - mass spectrometry in food safety analysis	Food Product App. Duration: 3 years
	Amirav, A. Tel Aviv U Lehotay, S.J. USDA, ARS	PA
IS-5455-21	The functional microbiome of apple fruit and its interplay with the host metabolome and postharvest pathogens	Food Product App. Duration: 3 years
	Droby, S. ARO, Min. Ag. * Whitehead, S.R. Virginia Tech	VA
	Freilich, S. ARO, Min. Ag. Wisniewski, M.E. Virginia Tech	VA

* Indicates an early career scientist (less than 5 years from first institutional appointment)