BARD Approved Projects
Award Year 2020

10/09/2020

US-5231-20CR 4986 5152 — **Sustainable agriculture: The case of macroalgal-based circular economy** — Ag. Economics & Rural Devel. — App. Duration: 3 years

Zilberman, D.	UC, Berkeley	CA
Palatnik, R.	Yezreel Valley College	
* Golberg, A.	Tel Aviv U	

US-5236-20 — **Open field agrivoltaics with an innovative spectral beam splitting solar collector** — Agricultural Innovation & Engi. — App. Duration: 3 years

* Hernandez, R.	N Carolina St. U	NC
* Vitoshkin, H.	ARO, Min. Ag.	
Kribus, A.	Tel Aviv U	
Mittelman, G.	ARO, Min. Ag.	

IS-5241-20 — **Beta-glucans as growth promoters and antibiotic alternatives in poultry** — Animal Health — App. Duration: 3 years

Schwartz, B.	Hebrew U	
Vetvicka, V.	U Louisville	KY
Rozenboim, I.	Hebrew U	

IS-5242-20 — **Development of *Salmonella* sensing-based antibacterials for use in poultry** — Animal Health — App. Duration: 3 years

* Mills, E.	Hebrew U	
* Petersen, E.M.	E Tenn State	TN

IS-5248-20 — **EGF/EGFR signaling in the southern flounder male reproductive system and its role in regulating sperm motility and fertility** — Animal Production — App. Duration: 3 years

* Aizen, Y.	Ruppin Academic Center	
Thomas, P.	U Texas at Austin	TX

IS-5255-20 — **Benefits of *Moringa oleifera*, an antioxidant rich feed, on improving ruminants production efficiency and product quality** — Animal Production — App. Duration: 3 years

Cohen-Zinder, M.	ARO, Min. Ag.	
Raskin, I.	Rutgers	NJ
Shabtay, A.	ARO, Min. Ag.	

IS-5257-20CF 4899 — **Feasibility Study: Using *in vitro* embryo production and gene editing to study embryology in sheep** — Animal Production — App. Duration: 1 year

Gershon, E.	ARO, Min. Ag.	
Ealy, A.	Virginia Tech	VA

IS-5261-20C 4937 — **The role of Botrytis necrosis-inducing proteins as plant immunogens, and their potential use in plant protection** — Crop Health — App. Duration: 3 years

Sharon, A.	Tel Aviv U	
Mengiste, T.D.	Purdue U	IN

US-5264-20 — **Elucidating how durable disease resistance curtails fungal infection in maize using deep-learning facilitated microscopy** — Crop Health — App. Duration: 3 years

Wisser, R.J.	U Delaware	DE
Horwitz, B.	Technion	

US-5265-20 — **Gene discovery to enhance potato resistance to Colorado potato beetle** — Crop Health — App. Duration: 3 years

Jander, G.	Boyce Thompson	NY
Aharoni, A.	Weizmann Inst.	

IS-5270-20R 5176 **Targeting the structural Glycoprotein N (Gn) of Tomato Spotted Wilt Virus (TSWV) to inhibit virus acquisition by thrips**

Crop Health
App. Duration: 3 years

Dessau, M.	Bar Ilan U	
Whitfield, A.E.	N Carolina St. U	NC

IS-5274-20 **Elucidating the cross-talk between root microstructure and soilborne pathogens**

Crop Health
App. Duration: 1 year

* Kleiman, M.	ARO, Min. Ag.	
Iyer-Pascuzzi, A.S.	Purdue U	IN

IS-5276-20 **Dissecting genetic resistance to Tomato brown rugose fruit virus (ToBRFV), the emerging tomato pathogen**

Crop Health
App. Duration: 3 years

Lapidot, M.	ARO, Min. Ag.	
Citovsky, V.	NYSU, Stony Brook	NY

IS-5283-20 **Understanding the interplay between TYLCV resistance and heat tolerance in tomato**

Crop Production
App. Duration: 3 years

Gorovits, R.	Hebrew U	
Strickler, S.R.	Boyce Thompson	NY
Czosnek, H.H.	Hebrew U	
Menda, N.	Boyce Thompson	NY

IS-5284-20 **Comparative genomic and genetic analyses of carbohydrate accumulation in winter squash and melon fruit**

Crop Production
App. Duration: 3 years

* Gur, A.	ARO, Min. Ag.	
Mazourek, M.	U Cornell	NY
Burger, J.	ARO, Min. Ag.	
Tadmor, Y.	ARO, Min. Ag.	
Schaffer, A.	ARO, Min. Ag.	

IS-5288-20 **Incorporation winter tree physiology into forecast-models of orchards bloom and yield**

Crop Production
App. Duration: 3 years

* Paz-Kagan, T.	ARO, Min. Ag.	
Zwieniecki, M.	UC, Davis	CA
* Sperling, O.	ARO, Min. Ag.	

IS-5292-20R 5192 **Next-generation basil: Mapping chilling-tolerance in sweet basil using next-generation sequencing for a long-lasting product**

Crop Production
App. Duration: 1 year

* Gonda, I.	ARO, Min. Ag.	
Simon, J.E.	Rutgers	NJ
Dudai, N.	ARO, Min. Ag.	
Wyenandt, C.A.	Rutgers	NJ
Kenigsbuch, D.	ARO, Min. Ag.	
Faigenboim, A.	ARO, Min. Ag.	

IS-5299-20 **smaRt dEsalination System fOr sUstainable agRiCultural usE (RESOURCE)**

Environ/Water/Ren. Res.
App. Duration: 3 years

Lazarovitch, N.	Ben Gurion U	
Cohen, Y.	UCA, Los Angeles	CA
Gilron, J.	Ben Gurion U	
Trippler, E.	Central & Northern Arava R&D	

IS-5304-20 **Optimal irrigation strategies informed by direct tree-water storage measurements**

Environ/Water/Ren. Res.

App. Duration: 3 years

* Mau, Y.	Hebrew U	
Bohrer, G.	Ohio St. U	OH

IS-5309-20R 5219 **Thermochemical processing of agricultural plastic waste for resource recovery and sustainable development**

Environ/Water/Ren. Res.

App. Duration: 3 years

* Posmanik, R.	ARO, Min. Ag.	
Goldfarb, J.L.	U Cornell	NY
Sills, D.	Bucknell U	PA
Dubowski, Y.	Technion	

IS-5315-20 **Integrating water treatment with nutrient utilization in intensive aquaculture by a new microaerophilic membrane assimilation reactor system**

Environ/Water/Ren. Res.

App. Duration: 3 years

* Bar-Zeev, E.	Ben Gurion U	
* Perreault, F.	Arizona St. U	AZ
Herzberg, M.	Ben Gurion U	
Zilberg, D.	Ben Gurion U	

IS-5317-20C 5038 **Cold induced sweetening as a trigger for endodormancy release of potato seed tubers**

Food Product

App. Duration: 3 years

Eshel, D.	ARO, Min. Ag.	
Jiang, J.	Michigan St. U	MI

IS-5321-20C 4783 **The genetic basis for postharvest chilling tolerance in tomato fruit**

Food Product

App. Duration: 3 years

Lers, A.	ARO, Min. Ag.	
Foolad, M.R.	Penn State U	PA
Fallik, E.	ARO, Min. Ag.	

IS-5323-20C 5042 **Epigenetic mechanisms controlling mycotoxin biosynthesis and pathogenesis in the plant pathogen *Penicillium expansum***

Food Product

App. Duration: 3 years

Sionov, E.	ARO, Min. Ag.	
Keller, N.P.	U Wisconsin	WI

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