

July XX, 2019

Chavonda Jacobs-Young, Ph.D.  
Administrator  
U.S. Department of Agriculture – Agricultural Research Service  
Jamie L. Whitten Building, Room 302-A  
14<sup>th</sup> & Independence Ave., SW  
Washington, DC 20250

Timothy L. Widmer, PhD  
National Program Leader – Plant Health  
U.S. Department of Agriculture – Agricultural Research Service  
5601 Sunnyside Avenue, Room 4-2202  
Beltsville, MD 20705

Dear Administrator Jacobs-Young and Dr. Widmer,

We are writing to request that Sahara Mustard (*Brassica tournefortii*) be designated a top priority Target Weed for the Biologic Control Program of USDA-ARS in your 2020-2025 Project Plan(s), and that sufficient funding and human resources be directed to this Target Weed so that a safe and effective biocontrol agent for Sahara Mustard is developed in the 2020-2025 time frame. Our request is a consequence of dozens of Letters of Concern we have received from our constituencies—State and National Parks, governmental agencies, non-governmental organizations, and academic institutions—from across the southwestern United States. These letters attest to the increasing economic and biological damage this invasive species is inflicting on the desert ecosystems of the American southwest.

Sahara Mustard is a non-native, highly invasive weed first documented in the United States in California's Coachella Valley in 1927. Its native range is the Mediterranean basin. It was accidentally introduced into the United States in the early 1900's, and for nearly a century it spread unchecked, and largely unnoticed, throughout the deserts of the American southwest. However, in the early 2000's Sahara Mustard's spread crossed a critical threshold and has since demonstrated its capacity to destroy native habitat on a vast scale—the ecosystem level—by virtue of its rapid adaptability, its explosive expansion rate, and its lack of natural predators.

The threats created by Sahara Mustard's destruction of desert habitat on an ecosystem-level scale are widespread and growing. Specifically, the rapidly expanding destruction of native habitat is a direct threat to many listed and endangered species, particularly in our State and National Parks, wilderness areas, and reserves. Additionally, Sahara Mustard's unchecked expansion has produced mounting economic impacts on those agencies and institutions struggling to limit its spread using herbicides and manual eradication methods. And within the last decade, increased fire hazard has become a threat for many municipalities and military

installations throughout the Southwest due to the flammable biomass produced by Sahara Mustard annually.

Because Sahara Mustard is now dispersed throughout the deserts of the southwestern United States, its spread cannot be contained with herbicides or manual eradication methods. The only hope of stopping this biological crisis is the development of a biocontrol agent that can be deployed at the ecosystem level. Toward this end, we understand your European Biologic Control Laboratory has already performed the foundational work necessary to find such a biocontrol agent. Specifically, your genomic analysis of Sahara Mustard in the United States (Phase I) combined with your genomic analysis of Sahara Mustard in its native range in the Mediterranean basin (Phase II) has enabled you to identify regions in the native range where suitable biocontrol agents can be found. With this knowledge you are now positioned to begin the third and final phase of this project: the identification of potential pathogen(s) against Sahara Mustard from its native range, and the testing of these potential pathogen(s) for safety and efficacy before release to suppress the epidemic of Sahara Mustard in the deserts of the American southwest.

USDA-ARS plays a key role in finding solutions to complex problems that affect America's environment and natural resources. Given the ecosystem-level threat posed by Sahara Mustard, we urge you to move as quickly as possible to complete the third and final phase of your ongoing effort to develop a safe and effective biocontrol agent to stop the spread of this invasive weed.

Sincerely,