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February 19, 2020

**Department of Soil & Crop Sciences** 

College of Agricultural Sciences Colorado State University Fort Collins, CO 80523

Dear Hiring Committee,

I am eager to apply to the Assistant Professor of Crop Quantitative Genomics position in the Soil and Crop Sciences Department at Colorado State University. I am currently a postdoctoral associate at Cornell University, working with Dr. Kelly Robbins on quantitative genetics solutions for plant breeding. I have combined a strong applied background in small grains and forage breeding with theoretical quantitative genetics, allowing me to integrate the newest computational technologies into a working breeding program.

I have demonstrated commitment and determination in research, teaching and leadership. I have obtained extra-mural funding to pursue the integration of digital ag and population-based genomic selection strategies for alfalfa improvement. To further my teaching experience and hone my philosophy, I co-instructed an advanced graduate-level quantitative genetics course during my postdoc. Serving as a co-leader for the Diversity Preview Weekend at Cornell, I have shown a dedication to learning about, and working toward a diverse, equitable and inclusive academic environment.

In this data-rich century, breeding programs must adapt to leverage computing capabilities and affordable genotyping technologies. By incorporating genome-wide information and proximal sensing, I intend to work closely with the new wheat breeder to determine how we can effectively shift a traditional 20<sup>th</sup> century breeding programs to a data-driven, 21<sup>st</sup> century breeding model. I hope to address both theoretical and logistical implementation problems through collaborations across the nation and around the globe. This transition will provide a valuable resource for public outreach, where farmers and consumers can learn how we are adapting the latest technologies to help fortify our food systems.

Moving forward, I want to establish ties across CSU and with Colorado farmers to build a cropping systems integration initiative, where all parts of the agronomic ecosystem are considered when making breeding decisions. I aim to help prepare future students for data-driven plant breeding by teaching courses with a quantitative, hands-on approach. Most importantly, I intend to pursue several initiatives to develop community based outreach programs, create a diverse experience requirement for graduate students, and shed light on the hidden curriculum in academia. I am dedicated to cultivating a safe, inclusive and equitable environment where students and staff of all backgrounds can thrive.

I thank the hiring committee for considering my application for the Assistant Professor of Crop Quantitative Genomics. CSU has a rich legacy in agroecology, plant science and breeding to which I hope to contribute.

Sincerely,

Nicholas Santantonio