

# Current and Future Sunflower Pathology Resource Materials

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## INTRODUCTION

The Sunflower Pathology Working Group (SPWG) was established in 2013 with funding from the North Central IPM Center. The mission of the SPWG is to develop academic reference and extension materials to help growers identify diseases and facilitate their ability to use IPM.

## EXTENSION MATERIALS

In response to the survey, the SPWG developed several print materials, including a 20-card diagnostic card set (Figure 2) and a playing card deck (Figure 3). These extension materials have been distributed in six continents and the diagnostic card set was translated into Chinese for distribution in Asia.

## SCIENTIFIC MATERIALS

In 2016, the first APS Sunflower Compendium was published (Figure 4). Over 350 copies have been sold and distributed in six continents. Additionally, the SPWG authored book chapters in the Handbook of Florists' Crop Diseases (2016) and in the American Oil Chemists Society Sunflower monograph (2015) (Figure 5).

## DETERMINING PREFERRED FORMATS

To determine the greatest sunflower pathology needs and preferred format of informational resources, a survey of sunflower growers, diagnosticians and National Sunflower Association yield-surveyors (Figure 1) was conducted.

Figure 2. Extension literature developed by the SPWG includes a 20-card diagnostic set in English and Chinese.



Figure 3. Sunflower disease playing cards.



Figure 4. APS Compendium of Sunflower Diseases and Pests.



Figure 5. Sunflower disease chapter in AOCs monograph.

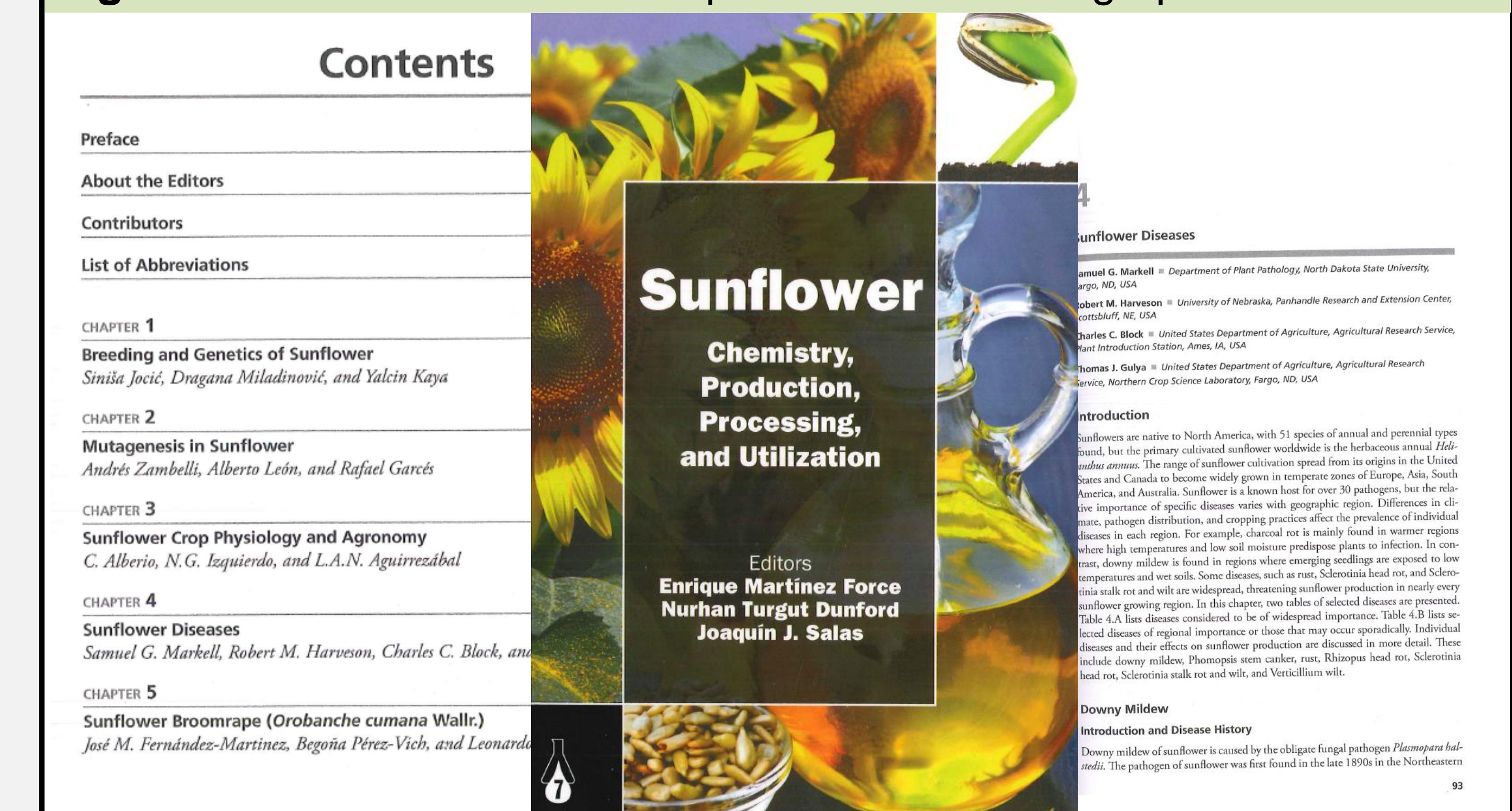
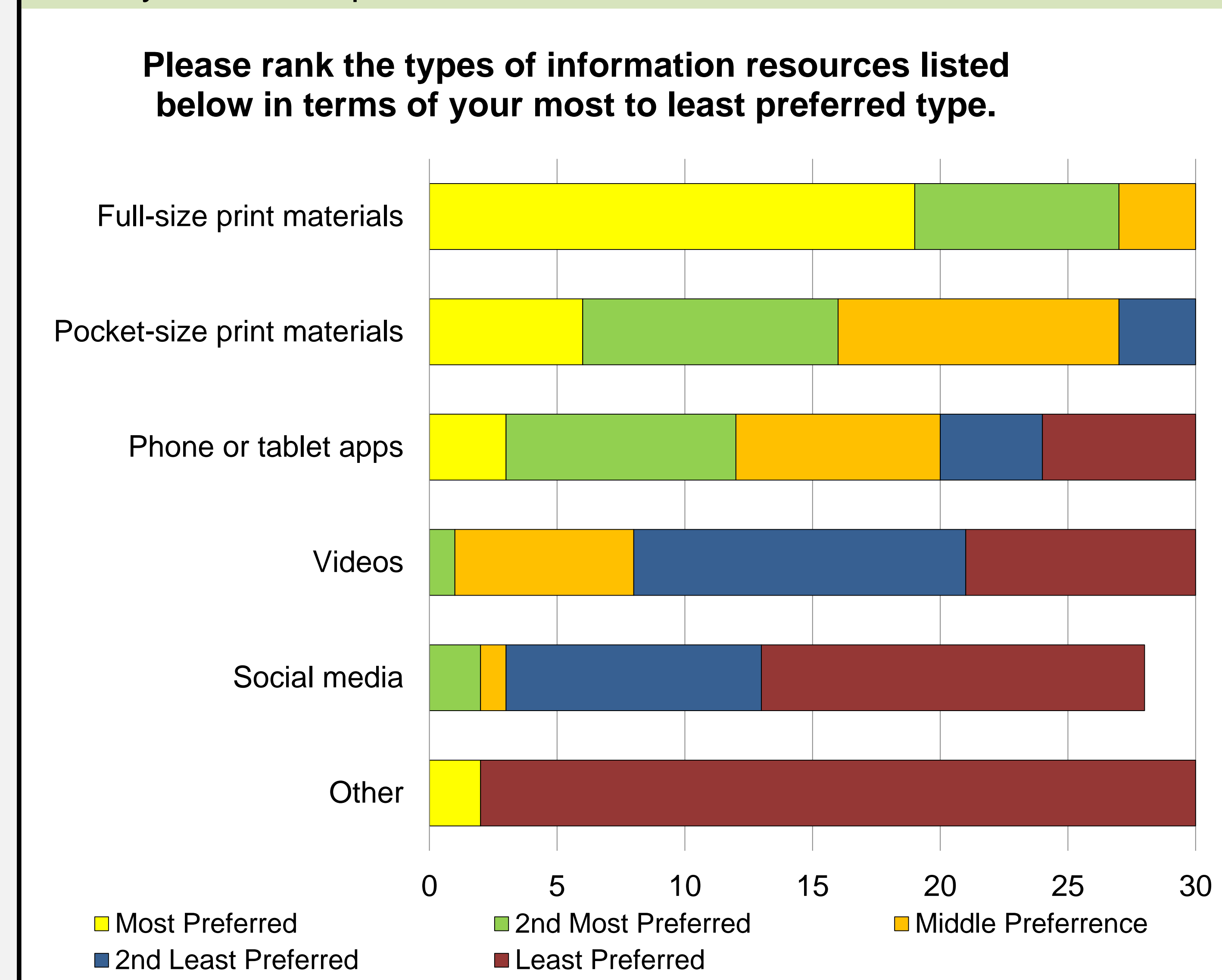


Figure 1. Rank of preferred information format by the National Sunflower Association yield-surveyors (n=30), made up of growers, Extension, industry and USDA professionals.



## ACKNOWLEDGEMENTS

We thank the National Sunflower Association and its members for the continued support and collaboration. We thank the North Central IPM center and the funding received by the USDA National Institute of Food and Agriculture, North Central IPM Center project AG 2012-51120-20252.

## FUTURE EXTENSION MATERIALS

To address the void of electronic information, two projects are in development. First, a diagnostic image database is being incorporated into the NDSU Pest Management App. Second, an interactive eBook on sunflower diseases is being developed. Completion of both projects are anticipated in January, 2019.

## FUTURE SCIENTIFIC MATERIALS

In 2018, a series of Diagnostic Guides will be submitted for publication in *Plant Health Progress*. This series will help diagnosticians identify diseases. Similarly, a *Plant Disease Feature Article* focusing on the impact diseases have had on sunflower production and research since 2001 will be submitted.

## PLEASE HELP US!

We would like feedback on what we have already developed and materials you would like in the future. Please consider taking the survey below! Thank you.