June 18th, 2019

Dear Processor Representative,

You may be aware of the recent occurrences of the parasitic weed, Broomrape, in processing tomato fields in Yolo, Solano and San Joaquin Counties. Although these findings have been isolated, it is vital that growers, in addition to industry personnel, are able to identify Broomrape, understand what should be done if it is found, and understand the implications of the spread of this parasitic weed to an individual ranch and the industry as a whole. As an industry, we do not want this weed to spread throughout the state.

Some considerations around Broomrape:

- Broomrape is classified as a Class A pest by the CDFA. Because of this classification, although the outcome for any given processing tomato field which is infested with broomrape is up to the Ag Commissioner of the county in which the find is made, the State of California strongly suggests a "hold" order on the field in question for a period of at least 2 years. In practice this means that the entire crop revenue will be lost in the year of the find and in the subsequent years only those rotational crops designated by the Ag Commissioner may be grown, harvested and sold.

- Broomrape is easily spread by equipment, boots and water.

- Broomrape is a prolific seed producer. One plant can produce over 100,000 seeds only 0.3 mm long. Broomrape seed has been documented to last in the soil for at least 35 years.

- The host range of broomrape covers a number of economically important rotational crops in the Central Valley: safflower, sunflower, carrot, bell pepper, several brassica species, lettuce, several bean crops (chick pea, faba bean, vetch, clover), melon, potato, olive and many common weeds.

- Although broomrape is a weed which other processing tomato producing regions outside of the U.S. deal with (recent studies from Chile and Greece suggest a potential 80% crop loss) there has been no findings to date of resistance genes. The methods of control which are in use elsewhere are complicated, costly and use chemistries which are not yet registered for use in tomatoes in the state of California.

Should you discover Broomrape in a field, please contact the grower immediately, who should in turn contact their respective county Agricultural Commissioner. The harvest of infested fields or blocks, because of the biology of this weed and it’s standing CDFA Class A status, is extremely ill-advised.
As an industry we are working on both short and long term solutions in the following areas: ongoing talks with the USDA to get instances related to broomrape included under Federal Crop Insurance, using the existing platform of the California Tomato Research Institute (CTRI) to direct and fund research around both spread reduction and long term management (3 grants funded for ongoing work in 2019), and finally; determining the most effective route towards eradication of broomrape seed in known infested fields. **Although these industry efforts are important, the most effective means to control the spread of this pest is active concern for the presence of this weed in processing tomato fields.**

Please share this information with those in your organization who are spending time in the field.

More information on this pest can be found at the UC IPM website. In addition, retired Farm Advisor, Gene Miyao, wrote a helpful article on the Sacramento Valley Field Crops blog in June of 2018 which can be found under the title, “Broomrape in field crops”.

Sincerely,

Zach Bagley
Managing Director

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Photos of Branched Broomrape in a California processing tomato field. Taken in 2018. This weed can be found in isolated areas of a field, in dense patches or significantly dispersed throughout.