

**Date : June 10, 2013**

**Advisory for Stripe Rust (Yellow Rust) Management in High Hills of Himachal Pradesh**

**Kullu Region of Himachal Pradesh: Green Bridge for stripe rust of wheat**

- Stripe rust survey was conducted extensively in Kullu district of Himachal Pradesh on June 4-5, 2013. Wheat crop was at different stages of maturity in this region. At some places the crop was being harvested whereas in other areas it was ready for harvest. Closely observing the dried leaves revealed the teliospore stage of stripe rust at Bajaura and other areas between Kullu to Bhaliyani. Stripe rust uredospores were also observed in high hills in Himachal Pradesh i.e. 1087-1887 mamsl. In different fields, the stripe rust intensity varied from 10S to 80S. In villages, Bragan and Bhaliyani, the stripe rust intensity was 60-80S in wheat sown under apple trees. The crop under apple trees was green and will be harvested by third week of June. The stripe rust was also observed in self sown wheats. There is a likelihood that this stripe rust infected wheat crop serves as a green bridge and the uredospore inoculum from Kullu further gets carried away with wind currents in Lahaul valley in July where the crop is available which is sown in May-June.
- There is also a possibility that stepwise the inoculum reaches Lahaul as self sown wheat crop is also found infected with stripe rust and there could be such wheat plants at several places at different maturity level of wheat crop. Though rust could not be found on the grass but intensive surveillance might reveal some grasses also harbouring the uredospore inoculum. The crop at Lahaul is harvested in September and there is a lapse of 3 weeks to one month i.e. October when the areas between Lahaul and sub-mountain tracts are devoid of any crop. As the temperature gets lowered by the time the crop matures at Lahaul and uredospores could survive as such on dried leaves and again possibilities of self sown wheat plants can not be denied. The uredospores either surviving as such under cooler temperatures at Lahaul and uredospores on self sown crop could serve as a source of inoculum for the crop sown in adjoining hilly areas of Himachal Pradesh and sub-mountain areas of Punjab in the regular wheat crop sown in November / October end. In general the disease in high intensity has been observed in areas adjoining Satluj and Beas. In Haryana also, the disease is of high intensity in adjoining areas in Yamuna belt of Yamunanagar district. This off season survey was undertaken by Dr. Indu Sharma, Project Director, DWR, Karnal and CSKHPKV Regional Research Centre, Bajoura (Dr Rakesh Devlash, Dr. Gurdev Singh, Dr Naval Kishore).

**Advisory for managing stripe rust in Kullu and Lahaul valley during June-September, 2013**

Keeping in view the high intensity of stripe rust in the Kullu valley during 1<sup>st</sup> week of June, immediate action required is as follows:

- Farmers are advised to visit their crop regularly in the coming days. If farmers observe yellow rust in their wheat fields, following measures are recommended:

- As soon as yellow rust is observed in the field, one spray of Propiconazole 25EC (Tilt 25 EC) @ 0.1 per cent or Tebuconazole 250 EC (Folicur 250 EC) @ 0.1 per cent or Triademefon (Bayleton 25 WP) @ 0.1per cent be given to control the disease.
  - One ml of chemical should be mixed in one litre water and thus 200 ml of fungicide mixed with 200 L of water should be sprayed in one acre wheat crop.
  - Farmers should spray the crop when weather is clear i. e. no rain, no fog / dew etc.
- There is a need of extensive training programs to make farmers aware of this disease.
- The varietal replacement in NHZ is essential for all the disease prone areas where regular *rabi* wheat crop is taken. Wheat varieties like **VL 892, HS 375, HS 507, HS 490 and VL 907** need to be spread in the entire wheat area in HP.

The impact of the disease in these areas has serious implications for high production region of Punjab and Haryana. So disease management in HP during June-September has to be essentially taken up.

(Issued by DWR, Karnal)