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Mapping new resistance gene to *Puccinia hordei* Otth. in barley

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Leaf rust of barley caused by *Puccinia hordei* Otth., is important disease in many barley growing areas. New virulent isolates as well as combinations of virulent genes are able to overcome resistance expressed by modern barley cultivars. However, only the leaf rust resistance gene *Rph7* is still effective in Europe. Since limited number of effective resistance genes are available it is necessary to identify new sources of resistance. The line Ph955-4 selected from barley landraces originated from ICARDA (International Center for Agricultural Research in the Dry Areas, Aleppo, Syria) carries single resistance gene to leaf rust and it is resistant to isolates virulent on lines containing resistance genes *Rph1* – *Rph6* and *Rph8* – *Rph12*. The allelism test excluded that the resistance is conditioned by gene *Rph7*. Ninety $F_{2:3}$ families were developed from the cross Ph955-4 × L94 for mapping experiments. Bulked segregant analysis with SSRs revealed linkage of the resistance locus with polymorphic microsatellites Bmac0067, Bmag0225, Bmag0013 and HVM62 – specific to chromosome 3H. Further saturation region of interest with AFLP markers is under way. So far, on chromosome 3H only resistance genes *Rph5*, *Rph6*, *Rph7* and *Rph10* were identified, thus we postulate new resistance gene on this chromosome.