

Integrated pest management

compete more vigorously with weeds and can sometimes escape pest attacks. The effect on competition with weeds is currently being investigated but the effect of seed priming on resistance to disease has been confirmed quantitatively in two cases. In Pakistan, primed crops of mungbean out yielded non-primed crops by a factor of four (0.36 t/ha versus 0.07 t/ha) and was associated with a striking difference in the incidence of Mungbean Yellow Mosaic Virus (MYMV) possibly due to differences in behaviour of the whitefly vector or different degrees of exposure to the

pest as a result of better crop cover, plant vigour or faster development. Recent studies have shown that priming seeds of pearl millet can induce increased resistance to Downy Mildew disease that can only be explained at the molecular level. This hypothesis is being explored further but it is clear that 'on-farm' seed priming can contribute in many ways as a component of an integrated pest management approach.



Non-primed mungbean (foreground) severely affected by Mungbean Yellow Mosaic Virus (MYMV) disease. The primed crop (background) is barely affected.