

<b>Name of the project</b>	<b>Development of bio-intensive module for the management of bakanae disease in basmati rice in western U. P.</b>
<b>Funding agency</b>	<b>Council of Science &amp; Technology, Lucknow (UPCST)</b>
<b>Year of start</b>	<b>2015-16</b>
<b>Year of completion</b>	<b>2018-19</b>
<b>Name of PI and Co-PI</b>	<b>Dr. Kamal Khilari</b>
<b>Total budget</b>	<b>10.68 Lakhs</b>

**Significant achievements:**

- Bakanae disease of rice is emerging as a serious problem of rice particularly in basmati rice. Use of fungicides in the management of this disease is posing a problem of fungicides residue in the rice.
- On the basis of study, the soil application of *Trichoderma* @ 10g/ m<sup>2</sup> was found effective for the management of bakanae disease of rice in field.
- During this study, through trials at farmer's field, it was observed that application of *Trichoderma* for the management of this disease is effective. Seed treatment with *Trichoderma* powder alone @4gm/kg seed before seed sowing is giving good results at farmers field in the management of this disease. Also through the study, it has been observed that this bio-agent may be applied for seed treatment with commonly used fungicides in rice.
- Through survey it was noted that PUSA-1121, which is a dominated variety of rice, is most susceptible for bakanae disease followed by PUSA-1509.
- Ten (10) different botanicals, twenty (20) isolates of *Trichoderma* and fifteen (15) fungicides were tested against causal agent of bakanea disease both in pot and lab condition. Among the tested botanicals, the extract of ajwain and ashwagandha were found very effective in inhibition of the growth of *Fusarium moniliforme*. In case of ajwain, 97% inhibition was noted whereas in case of ashwagandha it was 100% in comparison to control in lab condition.



***Trichoderma* powder ready for use or for storage for future use as seed treatment**