slow mycelial growth, late sclerotial initiation, low sclerotia production, and higher contamination (Table 1). Fungus growth on PDA was significantly better. However, the media appeared to have no significant effect on rate of disease development, although DI was less for PDA inocula than for other inocula. When 8 rice varieties were inoculated at boot stage with inocula from 32 isolates grown in PDA, water hyacinth (WH), and rice culm (RC), type of media had less effect on rate of disease development. However, varieties significantly differed in mean rate of disease development. This varietal difference was correlated with varietal disease reaction (Table 2). The findings suggest that RC, WH, or a mixture of RC and WH in any proportion are appropriate for large-scale production of *R. solani* inocula. □

Effect of rice plant age on rice tungro virus symptoms

R. Rajasegar and R. Jeyarajan, Plant Pathology Department, Tamil Nadu Agricultural University, Coimbatore 641003, India

We conducted a pot culture experiment with susceptible TN1 to determine the influence of rice plant age at the time of tungro (RTV) infection on incubation period and nitrogen metabolism. Plants were inoculated with viruliferous *Nephotettix virescens* when they were 15, 30, 45, 60, and 75 d old. Incubation period, and leaf and grain nitrogen content are in the table.

Effect of age of tungro virus infection on rice plants.

Age at inoculation (d)	Incubation period (d)	Leaves/tiller	Leaf length (cm)	Leaf nitrogen (%)	Grain nitrogen (%)
15	8.0	4.9	22.9	1.3	1.0
30	9.0	5.4	30.0	1.3	1.2
45	9.5	5.5	34.3	1.2	1.2
60	15.0	5.7	40.2	1.1	1.3
75	18.3	5.6	47.5	0.9	1.4
Control	–	5.7	49.4	0.7	1.4
Critical difference (P = 0.05)	1.6	0.3	3.3	0.08	0.07

Symptoms appeared 18.3 d after inoculation of 75-d-old plants vs 8 d for 15-d-old plants. There were significantly fewer leaves/tiller on plants inoculated at 15 d and leaf length was 53.6% less. As plant age at infection increased, there was a gradual increase in leaf length, but the leaves of all infected plants were significantly shorter than those of healthy plants. Infection of 75-d-old plants did not significantly reduce leaf length. Leaf nitrogen content was significantly higher for infected plants than for healthy ones. Nitrogen content of grains was significantly lower in plants infected at age 60 d than in healthy plants. □

Effect of growth regulators on tungro infection

R. Rajasegar and R. Jeyarajan, Plant Pathology Department, Tamil Nadu Agricultural University, Coimbatore 641003, India

When growth regulators indole-3-acetic acid (IAA) and gibberellic acid (GA) were applied to detached rice leaves or sprayed on rice plants, they prevented rice tungro virus (RTV) infection. We evaluated the effect of IAA and GA root or seedling dip on RTV infection.

Roots of 15-day-old TN1 seedlings raised inside an insect-proof cage were washed with water, then immersed in GA and IAA solutions at different concentrations for 1 h. The roots of control plants were dipped in water. Seedlings were transplanted in earthen pots and after 3 d were inoculated with RTV by viruliferous *Nephotettix virescens.* After 24 h inoculation feeding, insects were removed from the seedlings.

In another experiment, the entire seedling was immersed for 1 h in the growth regulator solutions and then inoculated. The control seedlings were dipped in water. The number of infected plants in each treatment was counted (see table). Percent of infected plants after root dipping gradually decreased as IAA concentration increased. At 400 ppm IAA, only 40% of the plants developed RTV symptoms. Against tungro, IAA was more effective than GA. □

Effect of plant growth regulators on RTV infection, Coimbatore, India.

Treatment	RTV infection (%)	
	Root dip	Plant dip
IAA 200 ppm	55	45
IAA 300 ppm	50	30
IAA 400 ppm	40	25
GA 400 ppm	65	40
Control	90	80
CD (P = 0.05)	10.2	5.9

Axonopus compressus, a grass host for *Rhizoctonia solani*

S. K. Lana and D. C. Khatua, Bidhan Chandra Krishi Viswavidyalaya, Cooch Behar, West Bengal, India

Axonopus compressus is a common perennial grass weed that grows on boundary ridges of rice fields and in farmyards in Jalpaiguri and Cooch Behar districts of West Bengal. Both districts have more than 3,000 mm annual rainfall. Soil is generally acidic. In Aug-Sep 1982, *Rhizoctonia solani,* a rice sheath blight pathogen, was found infecting *A. compressus* and border rows of rice plants. On artificial inoculation, isolates of *R. solani* from *A. compressus* and rice plants infected both plant species. *R. solani* apparently survives and multiplies on *A. compressus,* from which infection spreads to rice. □

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