significantly. Plots treated with 75-50-50 kg NPK + azolla yielded as well as those with 100-50-50 kg NPK alone (5.2 vs 5.4 t/haj, indicating that azolla might supplement 25 kg N/ha. The yield from 0-50-50 kg NPK + azolla (4.4 t/ha) was similar to that from 25-50-50 kg NPK/ha (4.6 t/ha).

A similar investigation was undertaken at the Ambasamudram Paddy Experiment Station in the 1978–79 kar season with the rice variety ADT31. The results show that the incorporation of azolla along with 50 kg N/ha gave yields equal to those with 75 kg N/ha alone (5.9 t/ha) indicating a saving of 25 kg N/ha. Azolla incorporation with 100 kg N/ha was superior to 100 kg N/ha alone (6.5 vs 6.3 t/ha). The results clearly indicated the positive effect of azolla inoculation in increasing grain yield. ■

Field conditions suitable for blue-green algae multiplication

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To determine the optimal field conditions for growth of blue-green algae, a trial was conducted in March 1979 in a field rich in the algae. Six conditions (see table) were tried with four replications. In the 10-m^2 bunded plots of the experiment, water height was maintained at 5 cm. Superphosphate was applied to the plots at 160 kg P_2O_5/ha. To control pests on the algae, 250 g carbofuran 3% G was applied to each plot. Seedlings of ADT31 were used for the planted field treatment.

Blue-green algae[a] yields. Tamil Nadu, India.

Treatment	Yield (kg/10 m^2)	Blue-green algae types in descending order of abundance
With fresh stubbles	5.84	M1, Ad, Pb
With stubbles up to soil surface	5.68	M1, Ad, Pb
Stubbles removed	3.96	M1, Ad, Pb
Stubbles incorporated	4.43	M1, Ad
Plowed, prepared without stubbles	3.16	M1, Ad
Planted field	6.23	M1, Ad
CD	0.36	

[a] Ml = *Microcoleus lacustris,* Ad = *Anabaena doliolum,* Pb = *Plectonema boryanum.*

Twenty days after the treatments began, blue-green algae floating on the water surface were collected, dried, and weighed.

Blue-green algae multiplication was highest in the planted field (see table). In the first three treatments, three types of blue-green algae – *Microcoleus lacustris, Anabaena doliolum,* and *Plectonema boryanum* – were observed. In the others, *P. boryanum* was not found. ■

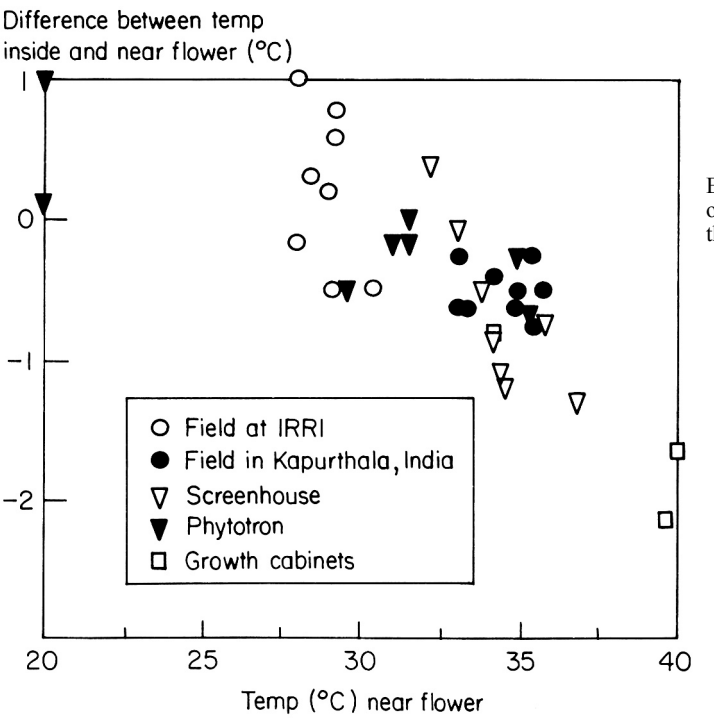
Environment and its influence

Effect of air temperature on rice flower temperature

I. Nishiyama, visiting scientist from the Tropical Agriculture Research Center, Japan (currently assigned to the Plant Physiology Department, International Rice Research Institute)

The temperature inside rice flowers was measured at different air temperatures on days of fine weather under flooding in phytotron glasshouse rooms, growth cabinets, screenhouses, and fields at IRRI and at the Regional Rice Research Station, Punjab Agricultural University, Kapurthala, Punjab, India.

When ambient air temperature was lower than 30°C, the temperature inside the flower was slightly higher (see figure). When it was higher than 30°C, the temperature inside the flower was lower. The difference increased with rising



Effect of air temperature on flower temperature in the rice plant.