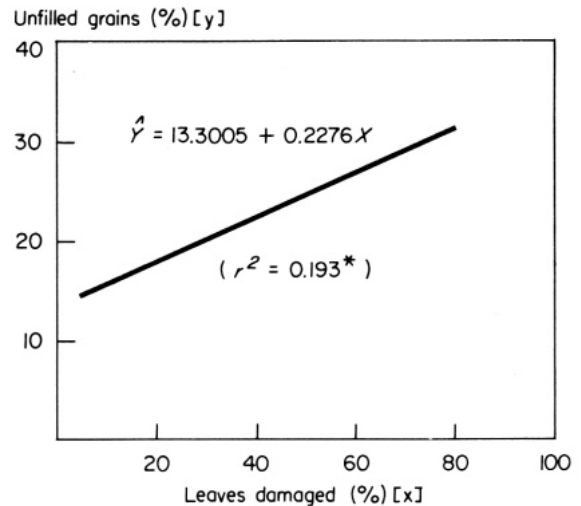


percentage of unfilled grains on the percentage of leaves damaged was studied. The regression equation for grain yield on percentage of leaves damaged was $\hat{Y} = 1.9234 - 0.0149 X$, with a highly significant ($P = 0.01$) r^2 value of 0.409 (Fig. 1). A 10% increase in damaged leaves reduced yield by 0.15 g/tiller.

The regression equation for percentage of unfilled grains on percentage of damaged leaves was $\hat{Y} = 13.3005 + 0.2276 X$, with a significant ($P = 0.05$) r^2 value of 0.193 (Fig. 2). A 10% increase in the damaged leaves increased the unfilled grains by 2%. □

2. Regression of percentage of unfilled grains on percentage of leaves damaged by leaf-folder. (n = 120)



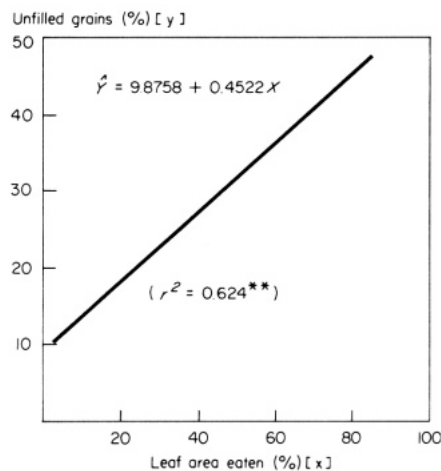
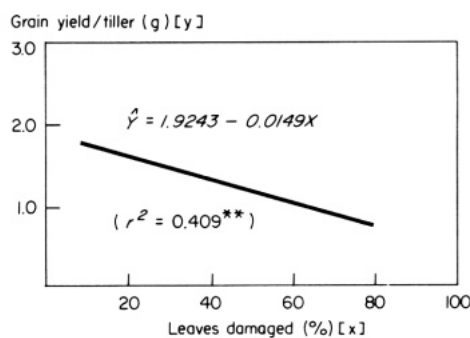
Rice yield losses caused by leaffolder damage to the flag leaf

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Rice leaffolder *Cnaphalocrocis medinalis* Guenée is an important rice insect in Tamil Nadu. Infestation is common at maximum tiller or flag leaf stages.

Flag leaves of potted IR20 plants were artificially infested with one 4th-instar larva/tiller. Feeding was confined to the flag leaf. Uninfested plants were the check. Four days after infestation, the larva was removed and damage was recorded as percent of the total area of the leaf. Grains from individual infested tillers were collected at maturity and percent unfilled grains was calculated. Healthy grain weight was recorded and lost grain yield was calculated.

Flag leaf damage ranged from 5 to 85% in different tillers and was categorized as <25, 26-50, 51-75, and >75%. Leaf area damage up to 50% reduced mean yield per tiller by 47%. When insect damage exceeded 75%, yield was reduced 70% (see table).



1. Regression of grain yield on percentage of flag leaf area damaged by leaffolder. Top: 2. Regression of unfilled grains on percentage of flag leaf area damaged by leaffolder.

Effect of flag leaf damage by leaffolder on rice grain yield.^a

Leaf area damage (%)	Mean yield (g/tiller)	Yield reduction (%)
<25	1.1	47
26-50	1.1	
51-75	1.2	46
>75	0.7	70
Uninfested	2.2	

^aMean of 8 replications.

The regression of grain yield on percent of leaf area damaged and percent of unfilled grains on percent of leaf area damaged was studied.

The regression equation of grain yield on the percentage area damaged was $\hat{Y} = 1.7274 - 0.0132 X$, with a highly significant ($P = 0.01$) r^2 value of 0.418 (Fig. 1). A 10% increase in leaffolder damage reduced yield by 0.13 g/tiller.

The regression equation of percentage unfilled grains on percent flag leaf damage was $\hat{Y} = 9.8758 + 0.4522 X$, with a highly significant ($P = 0.01$) r^2 value of 0.624 (Fig. 2). A 10% increase in flag leaf damage increased unfilled grains by 4.5%/tiller. □

Efficacy of insecticides against rice whorl maggot

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Chlorpyrifos 10 G (coroban), carbosulfen 3 G (furadan), and monocrotophos 40 EC (Monocil) were tested for control of rice whorl maggot (RWM) *Hydrellia philippina* at the NDUAT Crop Research Station during 1981 kharif. Saket 4 was

planted in 5 × 4m plots. Insecticides were applied to 10-day-old nursery seedlings 10 days after transplanting. Insecticide granules were broadcast and monocrotophos was sprayed. RWM infestation was recorded 30 days after transplanting