



## First report of the owl moth, *Anticarsia irrorata* Fabricus, (Lepidoptera: Noctuidae) on black gram (*Vigna mungo* L.) from middle Gujarat, India

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### Abstract

A regular survey was carried out on black gram, *Vigna mungo* (Linn.) Hepper field during *khariif*, 2020 at Agricultural Research Station, Anand Agricultural University, Derol, Gujarat. Infestation of owl moth, *Anticarsia irrorata* Fabricus, a new pest was recorded on blackgram. This pest's heavy foliar feeder. The adult is light brownish with darker areas distally. The forewing is marked with a diagonal line and a row of black dots and hindwing has similar markings. The larva is light green and it moves in a looping motion. The present study is the first report of *Anticarsia irrorata* Fabricus on black gram from middle Gujarat, India.

**Keywords:** Black gram, owl moth and *Anticarsia irrorata*

### Introduction

Black gram, *Vigna mungo* (Linn.) Hepper, also known as urdbean, mash, mashkalai *etc.*, belongs to the family Fabaceae; sub family Papilionaceae. Quantitatively black gram is very good source of protein (25%), besides this, it contains carbohydrates (56.6%), dietary fibre (18%), fat (1.2%), minerals (3.5%), lysine (0.43%), methionine (0.10%), tryptophan (0.04%), calcium (185 mg), phosphorus (345 mg) and iron (8.7 mg) per 100 grams (Anonymous, 2006) [2]. It improves the soil fertility and physical health of the soil, while making soil more porous due to the tap root system. The root nodules of black gram are said to be narcotic, diuretic and used as remedy for aching bones, dropsy and cephalgia (Chopra, 1956) [3]. Pulses, a subgroup of legumes, are crop plant members of the Leguminosae family that produce edible seeds, which are used for human and animal consumption. Only legumes harvested for dry grain are classified as pulses (Anonymous, 1994) [1]. The crop is damaged by an array of insect pests from sowing to harvest in the field as well as in the harvested produce in storage. Nearly twelve species of insects cause considerable yield loss in black gram. Spotted pod borer (*Maruca testulalis*), Whitefly (*Bemisia tabaci*), aphid (*Aphis craccivora*), flower thrips (*Megalurothrips distalis*), gram pod borer (*Helicoverpa armigera*) and hairy caterpillar (*Spilarctia obliqua*) were recorded as major pests on black gram (Kumar and Chandra, 2007) [4].

### Materials and Methods

To know the activity of different insect pests in black gram regularly observed at weekly interval starting from 17<sup>th</sup> July 2020, up to harvest of the crop during the season at Agricultural Research Station, AAU, Derol, Gujarat. During

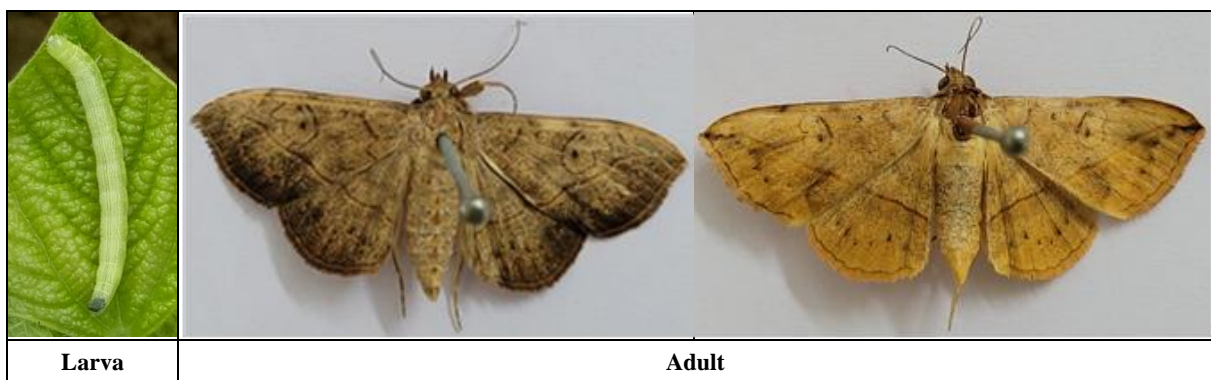
the survey work, a new lepidopteran larva was found infesting leaves of black gram. Periodical activity of this insect also noted. The same larvae collected from the field and brought to the laboratory. Collected larvae were reared into the laboratory and after emergence of adults killed into killing jar and pinned. These specimens were sent to Division of Entomology, IARI, New Delhi for identification and it was identified as *Anticarsia irrorata* Fabricus. In past, this pest was not reported on black gram from Gujarat. So far middle Gujarat is concerned, it was reported for the first time on black gram.

### Results and Discussion

The adult of *Anticarsia irrorata* Fabricus, light brownish with darker areas distally (Fig. 2). The forewing is marked with a diagonal line and a row of black dots. The hindwing has similar markings. The underside has lighter, brownish dots and a white spot. The larva is light green. It moves in a looping motion. It has adorsal line which is dark green with a yellowish center, and wider, spotted lines on either side. The spiracles are white with black edges. During the study period on an average 5-6 larvae per plant were observed. This pest's heavy foliar feeder. The pest was identified as a *Anticarsia irrorata* Fabricus (Lepidoptera: Noctuidae). Patel *et al.* (2023) [5] carried out on the diversity of moths providing a checklist from different regions of Gujarat like Kachchh district, Bhavnagar, Surat, Dang, Gir Protected area and Bhavnagar city and they collected different 138 moth among them they also reported the *Anticarsia irrorata* (Fabricius). Smee (1937) [6] first recorded *Anticarsia irrorata* Fabricius on the foliage of cowpea (*Vigna*) and the plataspid, *Brachyplatys testudonigra*, DeG., on *Dolichos* spp.



**Fig 1:** Damage by larvae of *Anticarsia irrorata* Fabricus



**Fig 2:** Overview of larva and adult of *Anticarsia irrorata* Fabricus

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