



## RESEARCH PAPER

# Effect of optical sensor based nitrogen management on N, P and K content and uptake by irrigated wheat (*Triticum aestivum* L.)

Rekha Ratanoo

Department of Agronomy, C.C.S. Haryana Agricultural University, Hisar (Haryana) India

(Email : [rekharatanoo@yahoo.com](mailto:rekharatanoo@yahoo.com))

**Abstract :** A field experiment was conducted at CCSHAU, Hisar to study the effect of optical sensor based N management on N, P and K content of grain and straw as well as N, P and K uptake by grain and straw by wheat crop during rabi season of 2013-14. N content in grain was more in treatments having N application at 3<sup>rd</sup> irrigation as compared to N application at 2<sup>nd</sup> irrigation. Total N, P and K uptake as well as N, P and K uptake separately by grain and straw, generally increased at increasing the level of fixed rate N application, when equivalent treatments (*i.e.* treatments having same time of GreenSeeker (GS) guided N application) were compared. Significantly higher N uptake by grain in two stage (*i.e.* at 2<sup>nd</sup> and 3<sup>rd</sup> irrigation stage) applied N using GS over 2<sup>nd</sup> irrigation applied N indicated that 3<sup>rd</sup> irrigation applied N is important regarding the grain N uptake.

**Key Words :** Wheat, Nutrient content, Plant nutrient uptake, Optical sensor (GreenSeeker)

**View Point Article :** Ratanoo, Rekha (2018). Effect of optical sensor based nitrogen management on N, P and K content and uptake by irrigated wheat (*Triticum aestivum* L.). *Internat. J. agric. Sci.*, **14** (2) : 389-393, DOI:10.15740/HAS/IJAS/14.2/389-393. Copyright@2018: Hind Agri-Horticultural Society.

**Article History :** Received : 30.03.2018; Revised : 05.05.2018; Accepted : 20.05.2018