



# KrishiKosh (कृषिकोश)

(/) An Institutional Repository of Indian National Agricultural Research System



(/)

[Advanced Search \(/advanced-search\)](/advanced-search)

[Krishikosh \(/\)](#) / [Birsa Agricultural University, Ranchi \(/handle/1/93542\)](#) / [Thesis \(/handle/1/93550\)](#)

Please use this identifier to cite or link to this item: <http://krishikosh.egranth.ac.in/handle/1/5810026990>

Authors: SINGH, MITHILESH KUMAR (/browse?type=author&value=SINGH%2C+MITHILESH+KUMAR)

Advisor: Malik, M.S. (/browse?type=author&value=Malik%2C+M.S.)

Title: STATUS OF NATURAL REGENERATION IN Shorea robusta Gaertn. (SAL) IN DIFFERENT SITES OF RARHA FOREST, RANCHI (JHARKHAND)

Publisher: Birsa Agricultural University, Kanke, Ranchi, Jharkhand

Language: en\_US

Type: Thesis

Pages: 74

Agrotags: null

Keywords: STATUS OF NATURAL REGENERATION IN Shorea robusta Gaertn. (SAL) IN DIFFERENT SITES OF RARHA FOREST, RANCHI (JHARKHAND)

**Abstract:** The present experiment was conducted on the “Status of Natural Regeneration in Shorea robusta Gaertn. (Sal) in different sites of Rarha Forest, Ranchi (Jharkhand)” at different sites of Rarha Forest, Ranchi in simple random sampling design. The forests of the study area were sampled between April to October, 2008. Four sites were selected for the study; which are as follows: Top of the hill (S1), Adjacent to village (S2), Parallel to road (S3) and Valley (S4). Sampling locations were established every 100 m within each 500m transect in each site. Altogether 20 locations were sampled in the area. The regeneration survey was carried out in line plot survey. Regeneration survey was carried out in 2m X 2m plot on either side of the survey line. The experiment in the present study was planned with the following objective: -i) To examine the status of regeneration in Sal forest at different sites and ii) To study the factors responsible for the status of regeneration in the above sites. The parameters calculated for each sites are Number of seed bearers at different locations, Girth at breast height of seed bears, Height of seed bears, Seed dispersal distance from mother tree, Soil characters of different sites, Regeneration data on Sal, and Identification of factors affecting regeneration. The present findings indicated that maximum number of seed bearer trees at sites top of hill, adjacent to village, parallel to road, and valley were in girth class 40-50cm (101 trees), 60-70 cm (105 trees), 60-70 cm (50 trees) and 30-40 cm (100 trees) respectively. Among the study sites maximum height was obtained at Adjacent to Village (S2) sites which was 24.40m for girth class 100-110cm followed by 21.17m for girth class 90-100cm, while minimum height was 4.47m found in valley (S4) site at 20-30 girth classes. In valley, soil pH and organic carbon was maximum whereas N, P, K is vary from site to site. In case of N, P and K, maximum was obtained in top of hill (S1) sites (334 kg/ha), parallel to road (S3) sites (40.26 kg/ha), and adjacent to village (S2) sites (264.24 kg/ha). Soil of the research area is sandy loam and clayey loam. Percentage of silt and clay remained almost unaltered but slight increase in sand, fine as well as coarse, was observed. Maximum WHC (%) was obtained in adjacent to village (S2) sites which were 45 followed by 36 parallel to road (S3) site, while minimum WHC was 26 found in top of hill (S1) site. The increasing regeneration categories of different sites are as adjacent to village > parallel to road > Valley > top of the hill. Out of the total survey area adjacent to village (S2) has good regeneration followed by parallel to road (S3). The percentage of regeneration weightage of top of hill (S1), adjacent to village (S2), parallel to road (S3), and valley (S4) was 12%, 45%, 28% and 15%, respectively. The regeneration weightage of top of hill (S1), adjacent to village (S2), parallel to road (S3), and valley (S4) was 5.75, 7.75, 7.75 and 1.75, respectively. There are various forms of biotic pressure like fire, grazing and browsing, and weed infestations, firewood collection, timber cutting, etc are seen in the study area. In the sites adjoining village and parallel to road such type of fire is maximum as compared to top of hill, whereas in valley no evidence of surface fire is observed. In almost all the study sites accidental type of forest fire is evident. However, incidences of deliberate fire for different purposes are also common. More incidences of grazing is seen in two study sites (near village and parallel to road) whereas, in other tow sites (top of the hill and valley) grazing incidence is less. In all the sites weed infestation like patches of Lantana camara, Eupatorium odoratum etc. have become a common occurrences. On top of the hill the distance traveled by seeds was found maximum (approx 345 m). In adjacent to village and parallel to road the distance traveled by seeds was less (approx 125 m) which is indicates by Sal pole crops. In valley, the distance traveled by seeds was found upto a distance of (approx 300 m) beyond 300 m the Sal plant are almost negligible.

**Description:** STATUS OF NATURAL REGENERATION IN Shorea robusta Gaertn. (SAL) IN DIFFERENT SITES OF RARHA FOREST, RANCHI (JHARKHAND)

**Subject:** Silviculture and Agroforestry

**Theme:** STATUS OF NATURAL REGENERATION IN Shorea robusta Gaertn. (SAL) IN DIFFERENT SITES OF RARHA FOREST, RANCHI (JHARKHAND)

**These Type:** M.Sc

**Issue Date:** 2009

Appears in Thesis (/handle/1/93550)

Collections:

Files in This Item:

File	Description	Size	Format
1206 Milhilesh Kumar Singh.pdf		2.75 MB	Adobe PDF



[View/Open \(/displaybitstream?handle=1/5810026990\)](/displaybitstream?handle=1/5810026990)

[Show full item record \(/handle/1/5810026990?mode=full\)](/handle/1/5810026990?mode=full)

[📊 \(/handle/1/5810026990/statistics\)](/handle/1/5810026990/statistics)

Items in DSpace are protected by copyright, with all rights reserved, unless otherwise indicated.