

# Poor seed distribution



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## What it does

When seeds are poorly distributed, plants become too dense or have undesired gaps in between where plants are too few. Weeds also grow and compete with the crop for nutrients.

## Why and where it occurs

Crop density is a problem of direct-seeded fields, especially when broadcast-seeded. Crops can be surface-broadcasted (wet or dry), drill-seeded (using machines) or broadcasted and incorporated when sown on dry fields. Pre-germinated seed is typically used when wet direct-seeding is done. Direct-seeded fields tend to have greater problems of lodging, especially when the seed is surface-sown.



Plant count is either too high or too low; weeds can grow where there are spaces between plants

When seeds are broadcasted, fields can have patches of either too many or too few plants depending on the skills of the broadcaster, and the soil conditions where the seed lands, and even how wisely the fields are watered more particularly immediately before and/or after sowing. Farmers often use high seed rates due to poor seed quality to compensate for losses to rats, birds, and snails, and to increase crop competition with weeds.

## How to identify

Check the field for the following:

- Plant count too high in direct-seeded fields causes more lodging of the plants.
- When too close, plants could have thin stems and possibly tend to lodge.
- When too few plants, there would be gaps in the field, weeds could grow and yield potential could be lost.

Pattern of damage is usually uneven across the field.

Various factors that may cause problems of crop establishment are undulating topography, cloddy soil, too deep seeding, too shallow seeding, too soft soil at seeding, poor emergence in low spots in fields, heavy rainfall at seeding, soil crusting, poor seed quality, low seed rate, poor water/irrigation management, water stress, muddy water at seeding, clogged seeder and/or pests such as ants, birds and rats that remove seed at planting.

## How to manage

- For good establishment, manage water properly and ensure well-leveled field/water, allowing water to settle
- Ensure an appropriate seed rate with its uniform distribution
- Crop stand will remain in order using seed rate of 40-45 kg per ha
- The plant population depends on the spacing between the plants and rows, if crop is line sown



Assam Agribusiness and Rural Transformation Project (APART)

The World Bank is the funding agency of APART

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