

Crop too dense



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What it does

Dense planting of crops results in poor crop stand and competition of nutrients from the soil. Stems can be thin and weak, and there are differences in grain maturation. Lodging can also happen during heading stage.

Why and where does it occur

Crop density is a problem of direct-seeded fields, especially when broadcast seeded. Crops can be surface broadcast (wet or dry), drill seeded (using machines) or broadcasted and incorporated when sown on dry fields. Pre-germinated seed is typically used during wet direct seeding.

Direct seeded fields tend to have greater problems of lodging, especially when the seed is surface sown. When 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. Farmers often use high seed rates due to poor seed quality to compensate for losses to rats, birds and snails to increase crop competition with weeds.

How to identify

To identify if your field is too dense, check if

- Plant count is high causes poor tillering and more lodging of the plants
- Plants are too close together, and with thin stems

High plant density can also result from high seed rates or uneven seed distribution in the field. Various factors that may cause problems of high/uneven crop density are high seed rate, defective seed delivery system or undulating field.

To confirm the cause of problem, ask the farmer about the seeding rate.

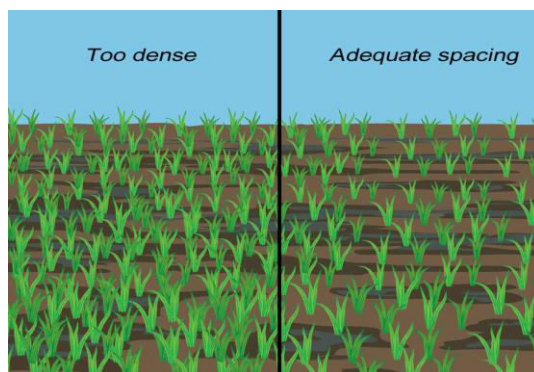
How to manage

For good planting or crop establishment, ensure proper flow of seeds in drills, check seed drop & even seeding depth during planting, and also use optimum seed rate while it is subjected to broadcasting.

- After planting, ensure good water management and well-leveled water, especially in direct seeded fields.
- Ensure appropriate seed rate with its uniform distribution.
- Use seed rate 40-45 kg per ha, if other factors such as pest problems and seedbed preparation, are not a concern.



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Assam Agribusiness and Rural Transformation Project (APART)

The World Bank is the funding agency of APART

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