

Muddy water



www.rkbassam.in

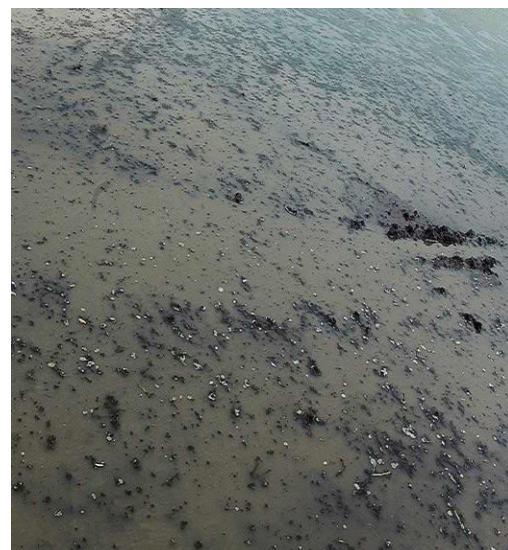
What it does

Muddy water reduces oxygen supply for the germinating seed, thus leading to low crop establishment.

Why and where does it occur

The problem occurs when seeds germinate and/or grow in muddy water with reduced oxygen (hypoxia) or no oxygen (anoxia) as a result of expulsion of air from the soil pores. The problem occurs mostly in direct-seeded fields.

Crops can be surface-broadcasted (wet or dry), drill-seeded (using machines) or broadcast and incorporated 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. Some fields are sown into standing water, or the water enters the field shortly after seeding.



Muddy water reduces the oxygen supply of the germinating seeds

How to identify

Fields with muddy water usually have low crop establishment. The pattern of damage is usually general 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.

To confirm the cause of the problem, check or ask the farmer about the color of water at the time of crop establishment (direct seeding only).

How to manage

- For good establishment, manage water properly and ensure well-leveled field, allowing water to settle.
- Ensure an appropriate seed rate with uniform distribution of seed.

