
Oral sessions | Field Crop Production | O11: Direct-seeded Rice in Asia-Oceania Region

[O11] Direct-seeded Rice in Asia-Oceania Region

Chair: Yoichiro Kato (The University of Tokyo, Japan)

Chair: Virender Kumar (International Rice Research Institute, Philippines)

Thu. Sep 9, 2021 9:45 AM - 11:45 AM Room 1 (Oral) (Field Crop Production)

10:40 AM - 10:55 AM

[O11-04] Direct Seeded Rice to Achieve Sustainable Production in South Asia

(Invited Speaker)

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About 70% of rice in South Asia is grown with intensive tillage/puddling followed by manual transplanting, which is labor, water, capital, and energy-intensive method. Direct seeded rice (DSR) is an alternative establishment practice that facilitates timely establishment for sustaining the productivity of rice-based systems. The rising labor cost, increasing availability of effective herbicides, scale-appropriate machinery and short-duration high-yielding varieties favor for broader adoption of DSR in South Asia. DSR is being adopted from irrigated to rainfed lowland and upland ecologies with associated benefits through reduced labor costs, less drudgery, water and energy savings besides significant decrease in GHG emission. Availability of seed-cum-fertilizer drills fitted with inclined plate seed metering mechanism (capable of handling low seed rates along with fertilizers in one go) has caught the interest of the farmers towards dry-direct seeding. Similarly, newly developed seeding machinery like Bokto seeder, Eli seeder and drum seeder are also attracting the farmers to opt for DSR in wet ecologies. Overall economic profitability and reduced environmental footprints are now well-realized benefits and impacts of DSR. However, weed management in DSR is still the major challenge and warrants for integrated management strategies, including herbicides, competitive varieties, laser land levelling, line sowing, residue mulching, mechanical weeding, water management, etc. for achieving higher yields, economic profitability, and reduced environmental footprints.