

Mashan's emergency harvesting case illustrates what a modern service center can contribute under such stress. According to the supplied materials, when the "double rush" period overlapped with typhoon weather, the center organized more than 20 harvester operations, completed emergency early-rice harvesting on more than 12,000 mu, and then dried more than 14,000 tons of grain. Even without experimental comparison, this is persuasive case evidence. It shows that the center's real strength in emergencies is not the harvester alone, but the combination of harvesting and drying in one coordinated system.

5.4 Promotion of standardized and green rice production

Modern agricultural service centers also make standardized and greener rice production more realistic (Figure 3). This does not happen automatically. Machines can be used badly as well as well. But when operations are bundled with technical support, scheduling discipline, and postharvest facilities, the service-center model can reduce some of the variability and waste that come from uncoordinated household production.

Recent studies provide several angles on this. Agricultural socialized services in south China have been found to encourage greener production behavior, particularly in fertilizer-use decisions among smallholder rice farmers (Shi et al., 2023). Socialized services of agricultural green production have also been shown to reduce fertilizer input in rice systems, especially when combined with stronger information and social support (Yang et al., 2022). Meanwhile, rice-focused studies of greenhouse gas mitigation remind us that more sustainable systems depend on management choices across water, organic inputs, tillage, and crop handling rather than on a single technical fix (Qian et al., 2023).

At the operational level, Mashan's model supports standardization in several ways. Centralized seedling cultivation reduces uneven crop establishment. Organized machinery service improves timing. Technical guidance strengthens field management. Centralized drying reduces postharvest instability and household-level weather exposure. If greener plant protection tools are adopted, professionally managed application can also reduce operator exposure and improve targeting relative to improvised field practice. Evidence from UAV-based herbicide application in direct-seeded rice suggests that modern spray systems can provide effective control while reducing labor burden and lowering carrier volume when used under appropriate conditions (Paul et al., 2024). The lesson is not that every center should rush toward any fashionable machine, but that professionalized service can make precision and greener input use more achievable.

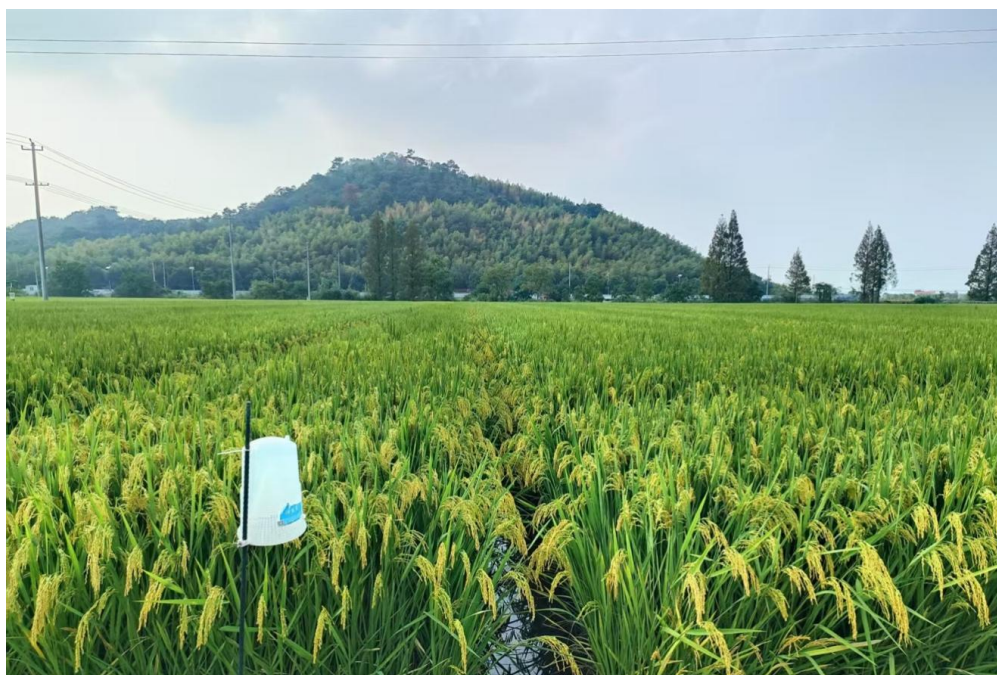


Figure 3 Standardized high-quality rice production field under agricultural service center management

Note: Unified field management supports standardized and green rice production (Photoed by Xinfeng Ren)