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**Journal of Weed Science and Technology**

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[\[PDF \(974K\)\]](#) [\[References\]](#)**Characterization of seed dormancy and germination patterns of weedy rice in Japan**Jun Ushiki<sup>1)</sup>, Maiko Akasaka<sup>1)</sup>, Mitsuaki Tezuka<sup>2)</sup> and Toshio Ishii<sup>3)</sup>

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**Summary:**

Characteristics of seed dormancy and germination patterns of weedy rice in Japan were studied by germination tests conducted at 100days after heading. Seventy-four and forty accessions of weedy rice collected from Nagano and Okayama Prefectures were studied, respectively. The results indicated that about 25% of the weedy rice accessions exhibited dormancy, and the most dormant seeds of the accessions germinated at about 200days after sowing. Although there were variations in germination patterns between the accessions, three distinct germination patterns predominated. The accessions were categorized into three germination patterns. About 75% of all weedy rice accessions germinated immediately similar to cultivated rice, and 95% of the seeds of these accessions germinated within 30days after sowing (germination pattern 1, GP1). On the other hand, about 18% of all weedy rice accessions germinated gradually, taking more than 30days to germinate 95% of the seeds (germination pattern 2, GP2). About 7% of all weedy rice accessions did not germinate for several weeks and then began germinating (germination pattern 3, GP3). The accessions with a high degree of dormancy such as GP2 and GP3 were collected from areas in Nagano or Okayama Prefectures where weedy rice occurred extensively. These results suggests that most weedy rice accessions currently found in Japan have little dormancy, similar to that found in cultivated rice, however, particular accessions occurring in limited areas have strong dormancy that might be related to the severity of occurrence in the field.

**Keywords:** weedy rice, dormancy, germination pattern, habitat distribution, de-

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