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## **Prospect of new variety breeding of Italian ryegrass in South Korea**

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### **Abstract**

The objective of this study was to know prospect and present state of new variety breeding of Forage and Grassland in South Korea. The industry of forage in Korea is going up to expend through utilization of good quality forage, *Italian* ryegrass, forage corn and oat rather than rice straw. Especially, since 2007, *Italian* ryegrass(IRG) had been very important major winter forage crop in South Korea and developed 13 varieties including very early maturity variety (three varieties), early maturity variety (three varieties), medium maturity variety (one variety) and late maturity variety (six varieties). But the disadvantage of *Italian* ryegrass was weak winter hardiness and drought but has good advantage of forage nutritive value, high-yielding and high sugar content, and like livestock as like hanwoo, dairy cattle, goat so on. The Ko-variety (Korea developed variety) of *Italian* ryegrass has high cold-tolerant and adaptability more than any other country developed variety, and expend to cultivation area from southern area (below Daejeon) to middle-northern area (upper Han river). Although the cultivation area of Italian ryegrass of South Korea was 21,700 ha in 2007, right now, that of Italian ryegrass is about 123,600ha due to expend cultivation area and know famer to good forage crop and have a various maturity varieties (very early, early, medium, late) according to local situation (before-crop harvesting stage or double cropping system). The seed market of Italian ryegrass in South Korea becoming extended to around 100 million Korean won and seed export get nearer to foreign country. We are going to develop of new variety for stress tolerant and high yield and quality forage variety, good adaptability to the Korean environmental conditions including reclaimed area, make self-sufficiency system for forage seed (Italian ryegrass), export our seed to foreign countries.

Keywords: *Italian* ryegrass (IRG), Forage crop, New Variety, Growth character

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