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The introduction of soybean in Italy: a success story made possible by a national research network in the decade 1981-1990

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The strategic relevance of a national soybean production had been acknowledged in Italy by the 1960s, but the crop did receive little attention until the late 1970s. From that time on, consistent research findings allowed an unparalleled crop development, which anchored the soybean in Italian farming systems. However, those achievements have been largely unavailable outside Italy and France, as most of the scientific reports were written in Italian. The paper aims to finally share with the soybean community an awareness about size and major outputs of that Italian program. The research network (*Progetto Oleaginose*), stretching from Udine (46° N) to Catania (37° N) was in place from 1981 to 1989. Formed by 12 research groups and managed by one of us (GPV), it was funded by the Italian Ministry of Agriculture. The goals were to define cultivation areas and Maturity Groups (MG) across the latitude span, then to single out top-performing cultivars. A total of 54 varieties belonging to 00-II MG (Northern and Central Italy) and I-IV MG (Southern Italy) were tested in 18 locations per year, for a total of 161 trials. In each location, two planting dates were adopted, to simulate full-crop vs. double crop choices. Each experiment was designed as RCB with 3 reps. Crop environment (site and year) caused the greatest yield variation (37%), followed by cultivar (9%) and sowing date (3%). Boundary-line analyses of grain yield-crop duration relationships cast light on the optimal crop duration (VE-R8). Around 120-130 days were needed to maximize yield in full-season crops; 95-100 days were adequate in the south and for double crops. Six field trials (Udine and Bologna, 1982-1983) were specifically designed to study soybean phenology. Eight planting dates were used in each location on three soybean cultivars (McCall, Hodgson and Wells; 00, I and II MG respectively).