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Sustainable fruit growing in unfavorable site conditions - Creating a protected orchard with local varieties

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It is more difficult to create productive systems in a windy place with sandy, shallow soil and with a tendency to droughts than in fertile soils. Orchards surrounded by hedges and green belts of forest species provides a well-functioning solution to this problem. Under the conditions of such areas, the presence of hedges gives protection to the plants of the orchard (wind protection, shadow, air and soil humidification). Before installing the system, it is advisable to apply clover/grass mixture, as this improves the soil structure and nutrient content. Covering the soil surface with grass leguminose soil covering prevents weeds. In the experimental orchard of Szent István University in Hungary, the orchard was partly carried out with self-grown fruit-tree grafting stocks, which promoted better rooting. In order to enhance the resilience and thus productivity of the system not only the varieties available in the nursery, but also the traditional varieties of fruit growing were used (in this case traditional Hungarian varieties such as „Penyigei" plum, „Szoboszlai early sour cherry, and „Húsvéti rozmaring" were planted). Due to the wide scale of varieties, the system is diverse and provides continuous crop production throughout the growing season.

Related publication:
https://www.repository.utl.pt/bitstream/10400.5/7281/1/REP-EURAF-Post-49_Andrea%20Vityi.pdf

Figure 1. Experimental forest garden of the Szent István University at Soroksár, Hungary

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