"Appropriate Technology for Agriculture"

## Trattorini—Small Tractors can do it ALL

It is the small farm operator who benefits most from mechanization because he/she must both grow, harvest and market the end products. Farm viability, ecological sustainability and grower sense of balance and independence puts great demands on time and labor. The larger growers can specialize all the functions and find serfs to do the hard work when needed and run them off when they are no longer needed.

In Italy where small scale enterprises, be they industrial or agricultural, are the rule, they use the term "Trattorini" of the smallest farm tractors. These are <u>not</u> glorified lawn mowers found at U.S. mass marketers but are farm tractors with dimensions and horsepower appropriate to smaller scale and diversified farming operations. They become fully functional because they have standardized 3 pt. systems and PTO's and can be equipped with a large array of implements for land preparation, fertilizing, seeding, transplanting, cultivating, spraying, harvesting, shredding and cover cropping.



Ferrari Vipar 26 HP with 59" flail mower.

The uniquely Italian tractor style uses equal size wheels at both ends of the tractor increasing traction and allowing much better weight distribution allowing even low horsepower to accomplish more while consuming less fuel. The equal weight distribution over all four drive wheels minimizes soil compaction. US tractor offerings as well as those from Asian suppliers are shrunken versions of conventional tractors retaining the poor weight distributions inherent in that design i.e. 70% of weight on rear axles. The Italian design also incorporates a lower center of gravity to improve stability on slopes and reduce overall height for work in greenhouses, shade houses and high density orchard plantings and pergola systems.

Because small scale farming is serious business in Italy, implements for nearly every purpose can be found in a version appropriate to small tractors. These appropriately scaled implements can be simple or as sophisticated as the tasks demand. Whether you grow vegetables, tend vineyards or fruit trees or woodlots, make hay or produce grains and beans, appropriately scaled implements help do the job right. Once the crop is made appropriately scaled stationary implements can be tractor powered to add value such as in milling feed. Still more appropriately scaled stand alone or self powered machines can thresh and hull crops for on farm consumption or for the market.

For the Market gardener an ideal system consists of growing beds alternating with slightly wider strips of turf. The sod keeps growing area accessible even after rain or irrigation and supports tractor tires avoiding ruts. Tractor straddles growing beds without compacting them. Turf strips slightly wider than tractor tires are easily maintained by tractor mounted mowers. CSAS, you pick farms and farms with on site stands benefit as well from attractiveness of such a growing system.



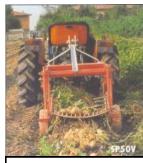
Bury stones and debris with models as narrow as 34" with tractors from 15 HP - 20 HP. Ideal seed bed preparation



Transplant seedlings or soil blocks or bulbs with 20 HP.



48" wide flail mower with Collector. Mow strips between beds and collect material for compost.



Digger for Potato, Garlic, Onions, etc. needs just 20 HP.



26 HP Goldoni spading in a cover crop. There is no better tillage system, models from just 31" wide.



Even smallest tractor can operate precision belt planters each metering unit can put down 1 to 3 lines of seed. Precise spacing minimal doubles mean less thinning and easier tillage.



Bassi Seed Spider plants high density greens.

The Trattorini's versatility extends to field crops such as hay and grain as well as permacultures such as vineyards, orchards, and woodlots. Appropriately sized implements aid proper establishment and harvesting of these diverse crops.



21 HP Tractor drilling hay, grain or cover crop.



21 HP tractor cutting hay with disc mower.



25 HP Trattorini powering a small square baler to produce 60+ pound bales of hay.



One of several small round balers that can be operated behind small 20 HP transporters or tractors.



26 HP Ferrari Vipar crop protection shown applying bordeaux mix on grapes.



3 PT mounted reaper binder takes just 20 HP, cuts 56" swath and ties grain into bundles to complete drying.

