Seed Bed Preparation and Shaping

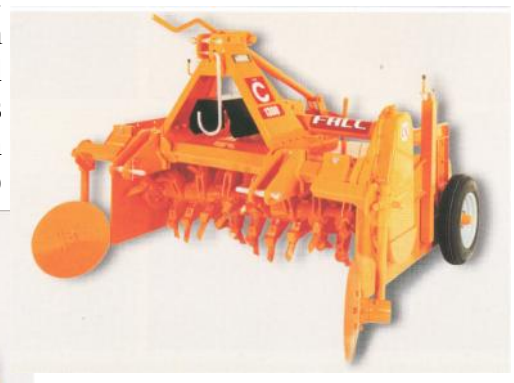
Preparing a seed bed consists of tilling compacted soil and breaking it into crumbles small enough to imbed seeds so that they are covered with soil yet able to send up shoots as they germinate. The soil structure should be small enough and distinct enough that they can be pushed aside by emerging plant rather than so glued together as to form a crust. This tilth or texture is dependent on organic matter; the mechanical tillage system used as well as the soil type.

A passive bed shaper is pulled through the worked soil to pull the loose soil in and up to form a raised growing area. The raised bed allows excess water from rain or irrigation to run off so as not to waterlog seedlings. The raised bed also allows cold soils to warm up quicker and angling the bed top can increase exposure to sunlight speeding up growth and allowing an earlier crop.

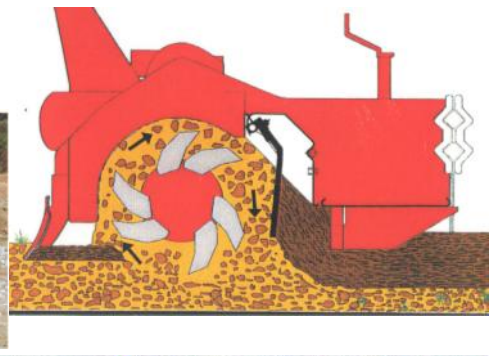
Passive bed shapers come in several forms the Ferguson bed shaper is a series of flat plates that funnel loose soil to give it a truncated triangle cross section i.e. a bed top narrower at top than at the base and the side of the bed sloping at 45 degrees and about 5” high. The passive bed shaper is limited as to the width of the bed by need for soil to flow into corners of the shaper to give a uniformly smooth growing areas. Small discs or plow shares set at angles help direct soil flow.

The European passive bed shapers generally add a roller to flatten and consolidate the bed top. With most of the passive bed shapers, bed tops range up to about 35” wide.

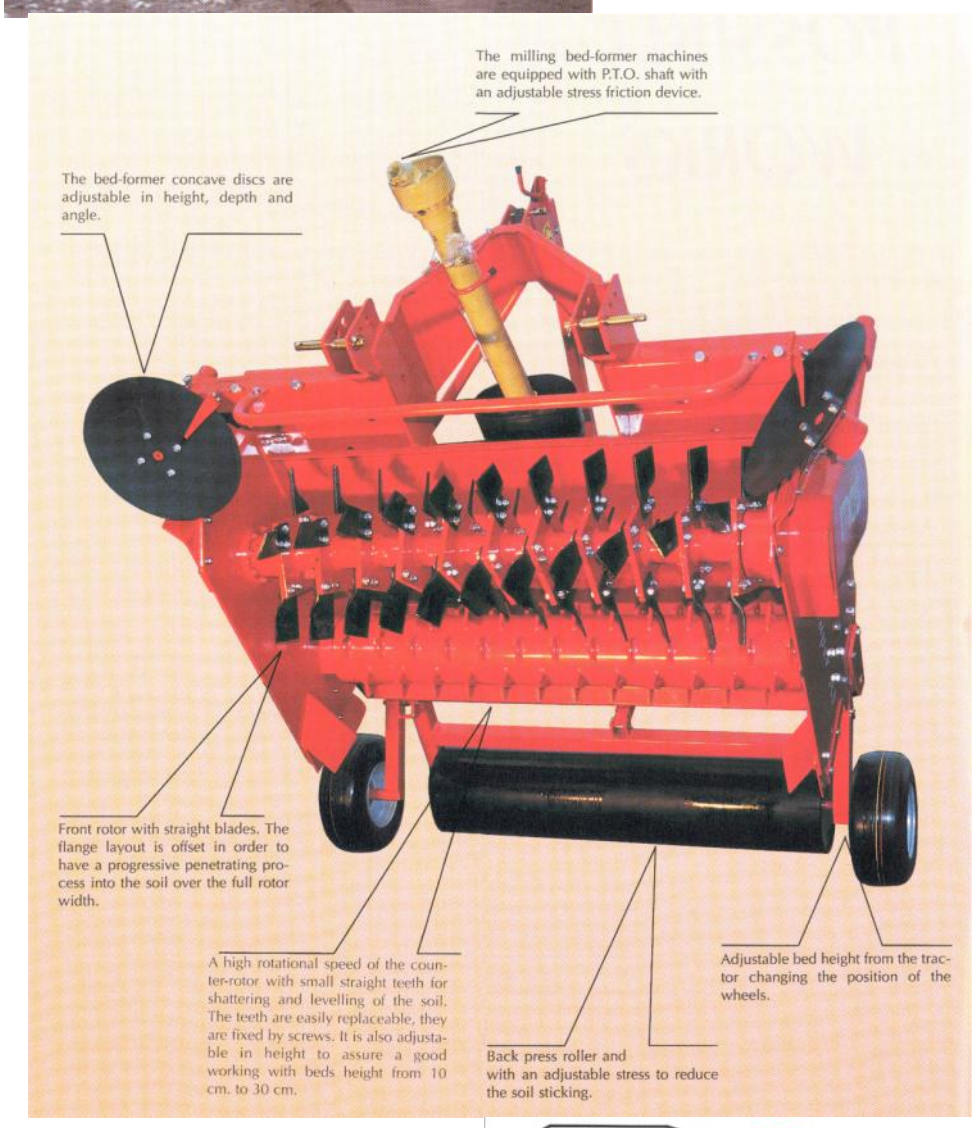
When one wants to prepare fine seed beds from 39” on up in width the answer is a powered bed maker. The Falc Cultiline is an example and one that uses a unique spiked rotor that breaks up clods and gives a good soil finish without glazing the subsoil or over working top soil as conventional rototillers would.



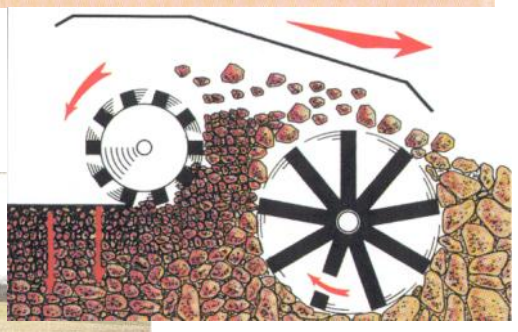
Soils full of stones, sod and crop debris can readily be turned into an effective seed bed using a stone burying tiller. These tillers have large rotors running in reverse that throw worked soil backwards over the rotor against a screen of steel tines. Soil, fine, free of debris, pass through while stones, root clumps and other debris fall to the bottom of the cut and are buried by clean soil. Mesh roller firms soil and leaves it uniformly flat.



Stone burying tillers can also be had in units that also raise and shape a growing bed in a single pass.



When raised beds are desired and one does not need the stone burying option, there are multiple rotor models to make single wide beds or can subdivide them into several smaller beds. Other variations can make extremely high beds for special crops such as white asparagus.



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