



## Basic primary tillage

## DEEP TILL & MIX

**Relieve soil compaction**

**Mix residue**

**Maximum 12" deep  
- or plow depth**

Many worthy chisel plows are on the market today. Most are drawn (pulled by the drawbar) and wider for big Horsepower tractors. We offer an excellent line of 3-point mounted chisel plows for 35 to 135 HP tractors.

Chisel plows provide basic deep tillage down to "plow level" to fracture soil and mix residue in the tillage layer. This primary tillage is elementary for post-harvest field work or preparation for raised beds.

## **CHISEL PLOW BASICS**

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- Chisel plows have thick C-shape shanks to churn up soil from the bottom. This fractures soil in the full tillage layer (down to "plow depth" - primary tillage) and mixes residue for typical over-winter or between-season decomposition. Used after harvest, soil can be more wet. Any resulting clods can break down before finishing seedbed next season. Used closer to planting, typically to prepare soil for raised beds, work soil at the right time or use in appropriate soil types for the best result, assuming further (secondary) tillage work to condition soil.
- In comparison, "moldboard plows" fully invert soil with primary intention of turning richer bottom soil up on top, which also turns the residue layer underneath. Plowing may be done annually or on occasion, depending on nature of soil. Understand your soils and work with nature.
- "Rippers" have a similar shank spacing to chisel plows but may be built heavier to fracture harder soil. Some designs may penetrate a little deeper. Rippers are characterized by flat, straight shanks, which do not churn or mix soil. The real value of ripper shanks with fancy shapes to possibly pull easier or for better soil fracture is debatable. Regardless, wait for proper dryness for best fracture between shanks. Soil too wet merely makes slots with no fracture and the tractor pulling it is then likely making compaction worse. With residue remaining on top, lead ripper shanks with coulters, if needed.
- "Sub-soilers" are heaviest to fracture well below the topsoil and have fewer shanks with broader shank spacing. Rippers and sub-soilers may seem similar in principle but sub-soilers are noticeably heavier and may require twice the HP to pull.