650.0804 Types of terrace cross sections

(e) Steep front–farmable backslope terrace

Steep front–farmable backslope terraces (also referred to as grassed front–farmable backslope terraces) are defined as terraces which have a 2:1 or flatter front slope and a farmable backslope with a 5:1 or flatter slope. Earthfill for the terrace ridge may be taken from the downhill side or from excavation of the terrace channel. The ridge front slope is not cropped and is seeded to permanent grass. The terrace channel is normally triangular shaped with the flow line located at the toe of the steep front slope. Figure IA8-1 shows terrace spacing terms for a steep front–farmable backslope terrace. Figure IA8-2 shows a typical steep front-farmable backslope terrace cross section with fixed front slope and backslope ratios.

Steep front–farmable backslope terraces are a relatively new type of terrace cross section. Some farmers prefer this type of cross section because it allows them to farm the backslope which reduces the amount of ground taken out of production. It also allows for the intake of the underground outlet to be placed at the toe of the steep front slope. This keeps the intake in a non-cropped area and minimizes the chance of the intake being damaged during farming operations.

Figure IA8-1 Terrace Spacing Terms
Steep front–farmable backslope terraces may be used on slopes up to 8 percent; however, it is generally recommended that the maximum slope for this type of terrace be limited to 6 percent. The primary reason for this limitation is that the ground slope in the farmable or horizontal interval increases with the construction of this type of terrace. This increase must be taken into consideration when determining terrace spacing requirements based on sheet and rill erosion.

As with narrow based and grassed backslope terraces, it is normally desirable to use a parallel alignment for this terrace cross section because the terrace ridge cannot be crossed with farm equipment. The use of a terrace spacing based on an even number of equipment widths is also advantageous since it provides for round trips back to the terrace access point for field operations.