

# FURROW TORPEDOS

Since our publication on furrow torpedoes, inquiries regarding its use have come in from farm agencies and publications all over the United States. That prompted Westlands' engineers to analyze torpedo use under varying conditions. Here, briefly, are the findings:

1. Ideally, differing soil textures and structures require torpedoes of different weights. This is being achieved by filling the torpedo pipe with varying amounts of concrete. If a grower is trying to reduce water intake rates as well as achieving a more uniform advance rate, the heavier the torpedo the better on most soils.

2. Soil intake characteristics can also be changed by using torpedoes of differing shapes.

The larger the torpedo diameter, the larger the wetted perimeter and the greater the intake rate on most soils. To minimize intake rate with a flow rate of 20 to 30 gpm, it appears that a 6" diameter torpedo filled with concrete is the best compromise, if it can be made heavy enough. Several farmers are planning experiments with torpedoes made of concrete shaped like the round-top car wheel stops used in parking lots but larger in size to maximize the weight of the 6u diameter torpedo. Such torpedoes could be shaped to smooth the sides of the bed and eliminate clods which fall back into the furrows when round torpedoes are used.

3. Colorado research, using a device similar to a torpedo in sandy soil, showed a reduction of 30-40% in infiltration rates over non-treated-Furrows.

Obviously the furrow torpedo can be made suitable for many different soil types and cultural practices.

