From Bell et al. (2004):

The Blancan is currently defined by the first appearance in North America south of 55°N latitude of arvicoline rodents in the genera Mimomys, Ogmodontomys, and
Ophiomys.

Current age estimates of early Blancan faunas indicate that the beginning of the Blancan dates to between 4.6and 5.2 Ma. The upper limit of the Blancan is marked by the lower limit of the Irvingtonian, here defined by the earliest appearance of Mammuthus south of 55°N latitude. As currently understood, the earliest known specimens of Mammuthus appear at approximately 1.35 Ma. Most of the Blancan is therefore within the Pliocene Epoch (5.335–1.77 Ma), but the youngest Blancan faunas are earliestPleistocene in age (according to the established epochal boundaries discussed earlier).

BLANCAN I
(APPROXIMATELY 4.9–4.62 MA)
The base of this division is defined by the immigration of *Ophiomys* and *Ogmodontomys* (both given as subgenera of *Mimomys* by Repenning 1987; Repenning et al.1990).

BLANCAN II
(APPROXIMATELY 4.62–4.1 MA)
The Blancan II is currently undefined. Its recognition was based on perceived evolutionary transitions in *Ophiomys* in the Pacific Northwest and in *Pliophenacomys* and *Ogmodontomys* in faunas east of the Rocky Mountains
(Repenning 1987). An expanded justification for the Blancan II was provided by Repenning et al. (1990), whose support for this interval was based in part on a desire to “maintain equivalent biochronologic units” between Europe and North America (Repenning et al. 1990:386, 398). To this end, the age of the earliest record of *Germanomys* in Asia was used to draw an arbitrary boundary for the
Blancan II in North America (Repenning et al.1990:397–398), although no North American immigration event can be definitively identified.

BLANCAN III (APPROXIMATELY 4.1–3.0 MA)
The first appearance of the muskrat lineage defines the beginning of the Blancan III (Repenning 1987; Repenning et al. 1990).

BLANCAN IV (APPROXIMATELY 3.0–2.5 MA)
The Blancan IV is undefined. The lower temporal boundaries proposed by Repenning (1987; at 3.2 ± 0.2 Ma) and Repenning et al. (1990; at 3.0 Ma) were drawn arbitrarily. The 1990 age of 3.0 Ma was chosen to achieve balance
in correlation between Europe and North America and to accommodate the entire Hagerman fossil sequence within the Blancan III. The Blancan IV is characterized by an *Ophiomys* with a lower first molar morphology intermediate between that
of *O. taylori* and *O. parvus* (Repenning 1987; Repenninget al. 1990). *Ophiomys* *magilli* in the Great Plains apparently is replaced *by O. meadensis*. *Pliolemmus* is still found in faunas in the Great Plains, and *Ogmodontomys* and *Pliophenacomys* persist.

BLANCAN V (APPROXIMATELY 2.5–1.9 OR 1.72 MA)
The beginning of the Blancan V is defined by the immigration from Eurasia of the bog lemmings.

**We accept Blancan I, III, and V, as just discussed, and consider Blancan II to be essentially a continuation (and further characterization) of Blancan I. Similarly, Blancan IV is a continuation and further characterization of Blancan III.**
For our purposes, the recognized divisions, as defined by Repenning, span the following intervals: **Blancan I (approximately 4.9–4.1 Ma), Blancan III (approximately 4.1–2.5 Ma), and Blancan V (approximately 2.5–1.9 or 1.72 Ma).**