

WildAgain Wildlife Rehabilitation Reconstitution Tests – Esbilac

Findings

Based on the described methodology, three lots of Esbilac® were tested, with the results summarized in the inset box at right and more fully displayed below.

Reconstitution efficiency Cluster size < 1,000µm	InterQuartile Mean		
	Resting time		
Product/Water temp.	Instant	8Hr	12Hr
Esbilac 3458E 3608 100F	87.7%	89.0%	87.8%
Esbilac 3458E 3608 160F	88.1%	86.8%	85.5%
Esbilac 1059E 1339 #18 100F	77.9%	87.5%	88.2%
Esbilac 1059E 1339 #18 160F	82.1%	69.9%	71.4%
Esbilac 2889E 2969 #03 100F	86.1%	84.7%	85.6%
Esbilac 2889E 2969 #03 160F	71.5%	71.2%	63.8%
100F (average all lots)	84%	87%	87%
160F (average all lots)	81%	76%	74%

In summary, the following observations were noted:

Water temperature used for mixing

It appears that sometime during the last 10 years or so Esbilac® may have undergone some changes in either its formulation or its manufacturing process - though this is only speculation. Ten years ago, WildAgain's reconstitution tests showed better results using a higher water temperature (160°F) when reconstituting into a final formula. The current round of testing no longer supports those earlier findings. Rather, it indicates when using only a warm water temperature (100°F), on average, a better result is achieved.

Resting time after mixing

The prior round of testing showed best results when the formula was mixed and then allowed some period of time to rest, and not used as an 'instant mix'. The current round of testing provided mixed results on resting time based on the water temperature selected for mixing. If warm water was used, it showed slightly better results if allowed to rest from 8-12 hours after mixing, and not favoring an instant use. Conversely, when hotter water (160°F) was used, performance declined noticeably. (This was most notable in Lot#2889E which is a lot produced after PetAg® had indicated it would start using a micronized form of dicalcium phosphate (DCP). The earlier form of DCP may have contributed to some of the medical issues seen last year attributed to substitute milk formula made with Esbilac®.)

Summary

Based on the test results in these three lots of Esbilac[®], best results may be achieved by 1) using warm water (100°F) for mixing, and 2) allowing the mixed formula to rest some period of time after mixing (up to 8-12 hours) prior to feeding.

