

Table 15a: Total Landbase¹ Required For The Livestock Operation In Hectares – Liquid Manure

STEP 1:	Determine the total number of animals produced by the livestock operation (i.e. pig places or barn capacity).	
STEP 2:	Determine the total annual volume of manure generated by the operation.	
STEP 3:	Determine the total landbase required for the operation based on nitrogen (N).	
OR STEP 4:	Determine the total landbase required for the operation based on 2X phosphorus (P ₂ O ₅) removal by the crop.	
OR STEP 5:	Determine the total landbase required for the operation based on 1X phosphorus (P ₂ O ₅) removal by the crop.	
STEP 1:	Number of livestock places	_____ (A)
STEP 2:	Volume of manure in litres/day or m ³ /day (Table 3a)	_____ (B)
	Number of days per year animals are at the operation	_____ (C)
	Volume of manure per year for the operation (A x B x C)	_____ (D)
STEP3:	Total nitrogen (N) content of the manure in kg/1000 litres or kg/m ³ (Table 4a or 4b)	_____ (E)
	Amount of N per year from the operation (D x E) (÷ 1000 if using kg/1000 litres) in kg	_____ (F)
	Nitrogen requirement (based on soil test) or removal in kg/ha	_____ (G)
	Hectares Required for Nitrogen (F ÷ G)	_____ (ha)
STEP4:	Total phosphorus (P ₂ O ₅) content of the manure in kg/1000 litres or kg/m ³ of (Table 4a or 4b)	_____ (H)
	Amount of P ₂ O ₅ per year from the operation (D x H) (÷ 1000 if using kg/1000 litres)in kg	_____ (I)
	1X crop P ₂ O ₅ removal (calculate using Table 6) in kg/ha	_____ (J)
	2X crop P ₂ O ₅ removal (J x 2) in kg/ha	_____ (K)
	Hectares Required for 2X crop P₂O₅ removal [I ÷ K]	_____ (ha)
STEP 5:	Hectares Required for 1X crop P₂O₅ removal [I ÷ J]	_____ (ha)

¹ The landbase calculation is an estimate of the total landbase required for the disposition of all of the manure generated by the operation in a year. It is for planning purposes only. Actual manure application rates are determined through manure management planning.