

No.	Author	Original location	Data requirements	Equation	Other studies
1	Wischmeier and Smith (1978) and Renard et al. (1997)	USA	Very fine sand (%), clay (%), silt (%), organic matter (%), soil structure, profile permeability	$M = \text{Silt} \times (100 - \text{Clay})$ $K = \left\{ \left[2.1 \times M^{1.14} \times (10^{-4}) \times (12 - a) \right] + [3.25 \times (b - 2)] + [2.5 \times (c - 3)] \right\} \div 100$ <p> <i>M</i>: Particle-size parameter Silt: silt (%) as well as the percentage of very fine sand (0.1 to 0.05 mm) Clay: clay (%) <i>a</i>: organic matter (%) <i>b</i>: soil structure code used in soil classification: 1: Very fine granular 2: Fine granular 3: Medium or coarse granular 4: Blocky, platy, or massive <i>c</i>: profile permeability class: 1: Rapid 2: Moderate to rapid 3: Moderate 4: Slow to moderate 5: Slow 6: Very slow </p>	Thailand (Eiumnoh, 2000); Vanuatu (Dumas and Fossey, 2009); Philippines (Schmitt, 2009); India (Jain and Das, 2010); Turkey (Ozsoy et al., 2012); Iran (Bagherzadeh, 2014); Portugal (Ferreira and Panagopoulos, 2014); China (Li et al., 2014); European Union (Panagos et al., 2014)
2	Williams and Renard (1983) as cited in Chen et al. (2011)	USA	Sand (%), silt (%), clay (%), organic carbon (%)	$K = 0.2 + 0.3 \exp \left(0.0256 \times \text{Sa} \times \left(1 - \frac{\text{Si}}{100} \right) \right)$ $\times \left(\frac{\text{Si}}{\text{Cl} + \text{Si}} \right)^{0.3} \times \left(1.0 - \frac{0.25 \times \text{C}}{\text{C} + \exp(3.72 - 2.95\text{C})} \right)$ $\times \left(1.0 - \frac{0.7 \times \text{SN}}{\text{SN} + \exp(-5.51 + 22.9\text{SN})} \right)$ <p> Sa: sand (%) Si: silt (%) Cl: clay (%) SN = 1 - (Sa/100) C: organic carbon </p>	China (Chen et al., 2011)
3	David (1988), a simplified version of Wischmeier and Mannering (1969)	USA	Sand (%), clay (%), silt (%), organic matter (%), pH	$K = [(0.043 \times \text{pH}) + (0.62 \div \text{OM}) + (0.0082 \times \text{S}) - (0.0062 \times \text{C})] \times \text{Si}$ <p> pH: pH of the soil OM: organic matter (%) S: sand content (%) C: clay ratio = % clay / (% sand + % silt) Si: silt content = % silt / 100 </p>	Philippines (David, 1988; Hernandez et al., 2012)
4	El-Swaify and Dangler (1976) as cited in Renard et al. (1997)	Hawaii, USA	Textural information, base saturation	$K = -0.03970 + 0.00311x_1 + 0.00043x_2 + 0.00185x_3 + 0.00258x_4 - 0.00823x_5$ <p> <i>x</i>₁: unstable aggregate size fraction (<0.250 mm) (%) <i>x</i>₂ = modified silt (0.002–0.1 mm) (%) · modified sand (0.1–2 mm) (%) <i>x</i>₃: % base saturation <i>x</i>₄: silt fraction (0.002–0.050 mm) (%) <i>x</i>₅: modified sand fraction (0.1–2 mm) (%) </p>	