Pan Evaporation Correction Factors (NWS Class A Pan)

TABLE 4.3.1 Suggested Values for the Pan Coefficient k_{pan}, Which Relates Reference Crop Evaporation E_{rc} to Measured Class A Pan Evaporation E_{pan}^{A}

	Case A: Pan surrounded by short green crop				Case B: Pan surrounded by dry, bare area			
		Mean relative humidity, %				Mean relative humidity, %		
Wind	Upwind fetch of green crop, m	Low <40	Med 40–70	High >70	Upwind fetch of dry fallow, m	Low <40	Med 40–70	High >70
Light (<1 m/s)	0	0.55	0.65	0.75	0	0.7	0.8	0.85
	10	0.65	0.75	0.85	10	0.6	0.7	0.8
	100	0.7	0.8	0.85	100	0.55	0.65	0.75
	1000	0.75	0.85	0.85	1000	0.5	0.6	0.7
Moderate (2–5 m/s)	0	0.5	0.6	0.65	0	0.65	0.75	0.8
	10	0.6	0.7	0.75	10	0.55	0.65	0.7
	100	0.65	0.75	0.8	100	0.5	0.6	0.65
	1000	0.7	0.8	0.8	1000	0.45	0.55	0.6
Strong (5–8 m/s)	0	0.45	0.5	0.6	0	0.6	0.65	0.7
	10	0.55	0.6	0.65	10	0.5	0.55	0.65
	100	0.6	0.65	0.7	100	0.45	0.5	0.6
	1000	0.65	0.7	0.75	1000	0.4	0.45	0.55
Very strong (>8 m/s)	0	0.4	0.45	0.5	0	0.5	0.6	0.65
	10	0.45	0.55	0.6	10	0.45	0.5	0.55
	100	0.5	0.6	0.65	100	0.4	0.45	0.5
	1000	0.55	0.6	0.65	1000	0.35	0.4	0.45

Source: After Doorenbos and Pruitt (Ref. 30). Used with permission.

Notes: Mean relative humidity is the average maximum and minimum daily relative humidities.

Case A: For pans surrounded by cropped fields or wet soils, with very dry soil beyond the prescribed fetch.

Case B: For pans surrounded by very dry soil, with cropped fields or wet soil beyond the prescribed fetch.

From Maidment 1993