

ERRATA for
PE Agricultural and Biological Engineering Practice Exam

ISBN: 978-1-947801-35-6

Copyright 2023

Errata posted 04/01/2024

Revisions are shown in red.

Solution 49, p. 87

The solution should read as follows:

$$\Delta T = 30^{\circ}\text{C or } 30 \text{ K}$$

$$Q = UA\Delta T$$

$$Q = 2,114 \text{ kJ/kg} \times 1,000 \text{ kg/hr}$$

$$Q = 2.11 \times 10^6 \frac{\text{kJ}}{\text{hr}} \times \frac{\text{W}\cdot\text{sec}}{\text{J}} \times \frac{\text{hr}}{3,600 \text{ sec}} = 586 \text{ kW}$$

$$UA\Delta T = 2,700 \text{ W/m}^2\cdot\text{K} \times 30 \text{ K} \times A$$

$$586 \text{ kW} = 2,700 \frac{\text{W}}{\text{m}^2\cdot\text{K}} \times 30 \text{ K} \times A$$

$$A = \frac{586 \text{ kW}\cdot\text{m}^2\cdot\text{K}}{2.7 \text{ kW} \times 30 \text{ K}}$$

$$A = 7.23 \text{ m}^2$$