**Section 570.APPENDIX B Procedure to Estimate Volume of Feedlot Runoff\***

Procedure to Estimate Volume of Feedlot Runoff\*

|  |  |  |  |
| --- | --- | --- | --- |
|   | (A) X | (B) = | (C) |
| Type of Drainage Area | Area (Square feet) | Multiplication Factor(feet) | Runoff Volume(Cubic feet) |
| Roof |  | 0.1408 |  |
| Feedlot |  |  |  |
|  | a.  | Paved or Concrete |  | 0.0991 |  |
|  | b. | Earthen |  | 0.0748 |  |

1. Feedlot Runoff Volume = Total of Column (C) (cubic feet).

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 2. | Milking Parlor Washwater | = | gallons | x | .936 (cubic feet-per week). |
| day |

3. Design Runoff Volume (VR) = 1 + 2 (cubic feet).

Use VR (cubic feet) for designing field application area.

4. Total area (sum of column A in square feet) divided by 100 is used to design settling basin.

5. To convert Runoff Volume (VR) from units of cubic feet into equivalent units of gallons, multiply cubic feet by 7.481 gallons/cubic feet.

\* Multiplication factor corresponds to Q of the U.S.D.A. – S.C.S. runoff equation.

 Storm event (I) is 1-year, 2-hour storm of 1.69 inches.

 Curve numbers (CN) are 100-roof; 95-paved; 91-earthen.

 S = (1000/CN) - 10

|  |  |  |
| --- | --- | --- |
| Q | = | (I - 0.2S)2 |
| (I - 0.8S) |