**USA Midwest Manufacturing Plant**

**Tentative Production Schedule**

**Daily Demand (Dj)**
- American Haggis: 600 Units
- Vegetarian Haggis: 410 Units

**Production Rate (Qj)**
- American Haggis: 2400 Units per Day
- Vegetarian Haggis: 2880 Units per Day

**Run Length (rj)**
- American Haggis: 1.75 Days or 14.00 hrs
- Vegetarian Haggis: 1 Days or 8.00 hrs

**Setup Time**
- American Haggis: 0.5 hrs
- Vegetarian Haggis: 4 hrs

**Production Plan**

**Process Activity: 12/07/09 - 12/31/09**

**Process Performance**
- Machine Idle time (from production and setup): 6.875 Days
- Utilization rate: 57.89%

**Note** current scheduling policy: one week production cycle

The run length is calculated by the following formula:

\[
    r_j = \frac{D_j \times 7}{Q_j}
\]

Where:
- \( r_j \) = Run length for Haggis j (day)
- \( D_j \) = Daily demand for Haggis j (lb)
- \( Q_j \) = Production rate per day for Haggis j (lb)