Case Questions: National Cranberry Cooperative

1. Describe cranberries and their role in American culture.

2. What are the problems facing Receiving Plant No. 1 (RP1)?

3. What are the sources of variability to which NCC is subjected?

4. Develop a process flow diagram showing the capacities of the various stages in barrels per hour. What is the bottleneck operation; i.e., the operation that limits the plant's output?

5. Suppose that a peak harvest-season day involves 18,000 barrels of berries, 70% of them wet-harvested, arriving over a twelve-hour period from 7 a.m. to 7 p.m. Suppose all wet berries are bulked and dryers start at 7 am. Draw an inventory buildup diagram for this situation. Would trucks have to wait to unload? When during the day would trucks be waiting? How much truck waiting time would you expect? How much money would be saved on one peak day if there were an additional dryer? Assume that the cost of renting cranberry trucks with drivers is $10.00/hour.