Worksheet on Defining Quality

For one of these products, describe how the farmer could define quality in terms of design, conformance, the abilities, and field service: (A) high oil corn for a food processor, (B) pork under contract for a specific processor, (C) apples for the fresh market, (D) horse boarding stable, (E) milk for a cheese processor, or (F) a product you are more interested in.

1. Quality of Design:
a)

b)

2. Quality of Conformance:
a)

b)

3. Abilities: Name one item for each

a) Availability:

b) Reliability:

c) Maintainability:

4. Field Service:
a)

b)

Worksheet on Concurrent Process Control Systems

1. Choose a type of farm (e.g., crop, dairy, horse) and a specific process on that farm (e.g., weed control, feeding).

Type:
Process:

2. Describe how a farm of this type could use the ideas of preliminary, concurrent, and feedback control.

3. Complete the following chart for a concurrent process control system for specific process you chose. Specify 3-4 critical points within the process and complete the chart.

Critical points	Type of measurement	Sensor	Monitoring schedule	Standards	Corrective Actions

Worksheet on Fail-Safe Plans

1. Choose a type of farm (e.g., crop, dairy, horse) and a specific process on that farm (e.g., weed control, feeding) that would benefit from a fail-safe plan.

Type:
Process:

2. Describe a fail-safe plan for making sure the process you chose is done correctly.

3. If appropriate to the process you chose, describe what a kit or toolbox could look like to ensure that a worker would have everything he or she needed before starting the process.

4. How can a farmer be sure that the tasks are done in this process?

Worksheet on Trend Charts and CE diagrams

During wheat harvest, Paula Whitney was concerned about the amount of grain coming out of the combine rather than going into the hopper. Over the past 3 days, Ms. Whitney has taken 10 measurements of how much wheat is coming out as waste and not going into the hopper. The measurements for the kernel loss are in kernels per square foot: 18, 21, 19, 23, 24, 21, 24, 27, 29, and 28.

1. Prepare a trend chart that shows the kernel count measurements.

2. Based on what this trend chart shows, is the kernal count moving randomly or in a specific direction that is a cause for concern?

3. Draw a CE diagram to help Ms. Whitney identify different factors that affect the kernel count. Start with “kernel count” on the right. Group the factors into workers, materials or inputs, inspection, equipment or tools, and weather.