|  |  |  |  |
| --- | --- | --- | --- |
|  | **General** | **Housing**  | **Management** |
| **Farm** | **Location** | **Size** | **Housing type(s)** | **Heating** | **Cooling** | **Protective rails** | **Supplemental heat** | **Sows checked/d** | **Cross-foster** | **PWM is seasonal** |
| 1 | IA | 71-100 sows | Indoor, Outdoor, Hoop | yes | yes | yes | yes | >3 | yes | yes |
| 2 | MN | 51-70 sows | Hoop | yes | no | no | no | >3 | yes | yes |
| 3 | MN | 31-50 sows | Hoop | no | no | yes | yes | >3 | yes | yes |
| 4 | MN | 51-70 sows | Hoop | no | yes | yes | yes | 2 | yes | yes |
| 5 | MN | 10-30 sows | Indoor  | no | no | yes | yes | 2 | yes | no |
| 6 | MN | 31-50 sows | Indoor, Outdoor, Hoop, Pasture | no | no | yes | yes | >3 | yes | yes |
| 7 | MN | 10-30 sows | Indoor, Pasture | yes | yes | yes | yes | >3 | yes | no |
| 8 | IA | 51-70 sows | Indoor | no | no | no | yes | 2 | yes | yes |
| 9 | IA | 31-50 sows | Indoor | yes | yes | yes | yes | >3 | yes | yes |
| 10 | IA | 31-50 sows | Indoor | yes | yes | yes | yes | >3 | yes | yes |
| 11 | IA | 31-50 sows | Indoor | yes | no | no | no | >3 | no | no |
| 12 | MN | 10-30 sows | Indoor | yes | no | yes | yes | 2 | no | yes |
| 13 | MN | 10-30 sows | Indoor | no | no | yes | yes | >3 | yes | yes |
| 14 | MN | 10-30 sows | Indoor | yes | yes | yes | yes | >3 | no | yes |

### Table 4.1 Producer survey results for the 14 producers that were willing to participate

### 1Heating is provided for the sows.

### 2Cooling is provided for the sows.

### 3Protective rails are present inside the farrowing pen/hut.

### 4Supplemental heat is provided for piglets inside the farrowing pens/huts.

### 5How many times sows are checked per d by the producer.

### 6Piglets are cross-fostered within 24 h of birth.

### 7The producer, through personal observation, believes that pre-weaning mortality is seasonal on their farm, higher in warmer or cooler weather.

### Table 4.2 Farrowing performance results by farm

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|   | Farm 11,2 | Farm 2 | Farm 3 | Farm 4 | P-value |
| Number of farrowings | 61 | 60 | 85 | 49 |   |
| Total born | 8.8 ± 0.5ax | 9.9 ± 0.5y | 10.5 ± 0.4x | 11.7 ± 0.5ay | 0.10 |
| Number born alive | 7.5 ± 0.7x | 9.1 ± 0.6 | 9.1 ± 0.6 | 10.8 ± 0.6x | 0.19 |
| Stillborn | 1.3 ± 0.7 | 0.7 ± 0.3 | 1.3 ± 0.5 | 1.0 ± 0.5 | 0.60 |
| Litter size 24 h post-farrowing | 7.6 ± 0.7a | 9.2 ± 0.6 | 9.0 ± 0.5 | 10.8 ± 0.7a | 0.15 |
| Number of piglets alive/litter at 10 days | 6.3 ± 0.5a | 7.7 ± 0.5 | 7.8 ± 0.4 | 9.2 ± 0.6a | 0.11 |
| Number of piglets dead/litter at 10 days  | 1.1 ± 0.3 | 1.7 ± 0.3 | 1.2 ± 0.2 | 1.7 ± 0.3 | 0.34 |
| 1Least squares means ± standard errors |  |
| 2Farm 1 suffered from an outbreak of PRRS during the study |  |  |
| aWithin a row, means with like superscripts differ by P<0.05 |  |
| x,yWithin a row, means with like superscripts differ by P<0.05 to P<0.10 |  |

### Table 4.3 Farrowing performance results by season

|  |  |  |  |
| --- | --- | --- | --- |
|   | Spring1 | Winter | P-value |
| Number of farrowings | 89 | 166 |   |
| Total born | 10.9 ± 0.4 | 9.5 ± 0.2 | <0.01 |
| Number born alive | 9.9 ± 0.6 | 8.3 ± 0.4 | 0.02 |
| Stillborn | 1.0 ± 0.3 | 1.1 ± 0.4 | 0.82 |
| Litter size 24 h post-farrowing | 10.1 ± 0.6 | 8.2 ± 0.4 | <0.01 |
| Number of piglets alive/litter at 10 days | 8.9 ± 0.5 | 6.6 ± 0.3 | <0.01 |
| Number of piglets dead/litter at 10 days  | 1.2 ± 0.2 | 1.6 ± 0.2 | 0.09 |
| 1Least squares means ± standard errors |  |  |  |
|  |
|  |

### Table 4.4 Farrowing performance results by season on each farm

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|   | Farm 1 | Farm 2 | Farm 3 | Farm 4 |
| Performance measure | Spring1 | Winter | P-value | Spring | Winter | P-value | Spring | Winter | P-value | Spring | Winter | P-value |
| Number of farrowings | 8 | 53 |   | 14 | 46 |   | 43 | 42 |   | 24 | 25 |   |
| Total born | 9.9 ± 1.1 | 7.8 ± 0.4 | 0.06 | 9.7 ± 0.8 | 10.2 ± 0.5 | 0.63 | 10.8 ± 0.5 | 10.2 ± 0.5 | 0.36 | 13.8 ± 0.8 | 10.6 ± 0.6 | <0.01 |
| Number born alive | 8.8 ± 1.4 | 6.4 ± 0.7 | 0.10 | 8.9 ± 1.0 | 9.3 ± 0.6 | 0.73 | 9.7 ± 0.8 | 8.6 ± 0.7 | 0.33 | 12.7 ± 1.4 | 9.1 ± 0.9 | 0.03 |
| Stillborn | 0.1 ± 0.7 | 1.7 ± 1.2 | 0.60 | 0.6 ± 0.3 | 0.7 ± 0.3 | 0.83 | 1.1 ± 0.6 | 1.6 ± 0.8 | 0.60 | 1.4 ± 1.0 | 0.7 ± 0.4 | 0.50 |
| Litter size 24 h post-farrowing | 9.0 ± 1.3 | 6.4 ± 0.6 | 0.05 | 9.2 ± 1.0 | 9.3 ± 0.6 | 0.90 | 9.8 ± 0.7 | 8.3 ± 0.7 | 0.14 | 12.7 ± 1.3 | 9.1 ± 0.8 | 0.01 |
| Number of piglets alive/litter at 10 days | 8.0 ± 1.1 | 4.9 ± 0.4 | <0.01 | 8.3 ± 0.9 | 7.1 ± 0.5 | 0.21 | 8.6 ± 0.6 | 7.1 ± 0.5 | 0.05 | 10.8 ± 0.9 | 7.9 ± 0.7 | 0.01 |
| Number of piglets dead/litter at 10 days  | 0.8 ± 0.3 | 1.6 ± 0.4 | 0.15 | 1.1 ± 0.3 | 2.8 ± 0.4 | <0.01 | 1.2 ± 0.2 | 1.1 ± 0.2 | 0.71 | 2.0 ± 0.5 | 1.5 ± 0.3 | 0.39 |
| 1Least squares means ± standard errors |