

**Table 1.** Sensitivity, specificity, positive (PPV) and negative predictive values (NPV) of various tests to detect hypocalcemia (total serum calcium < 2 mmol/L) in Holstein cows of more than 2 lactations.

Tests	Sensitivity	Specificity	PPV	NPV
Previous Milk Fever (PMF)	35%	100%	100%	40%
Dystocia	47%	39%	64%	23%
Decreased Appetite	39%	83%	85%	35%
Cold Ears	33%	68%	73%	29%
Decreased Rumen Motility	50%	72%	81%	37%
Decreased Ability to Defecate	60%	74%	84%	45%

The history of having a previous milk fever (PMF), a decreased appetite and clinical signs of decreased rumen motility or decreased ability to defecate demonstrated good to excellent positive predictive values to detect cows with low calcium but poor negative predictive values. By using the PMF and the WPR tests in parallel or in series, we were able to increase the negative predictive values (>50%) compared to each test used separately (Table 2).

**Table 2.** Sensitivity, specificity, positive (PPV) and negative predictive values (NPV) of 2 tests (Previous milk fever and WPR test) used in Parallel and in Series to detect hypocalcemia (total serum calcium < 2 mmol/L) in Holstein cows of more than 2 lactations.

PMF & WPR	Sensitivity	Specificity	PPV	NPV
Parallel	68%	86%	92%	52%
Series	12%	100%	100%	68%

The high prevalence of hypocalcemia found in this study demonstrates the importance of this disease in mature Holstein cows. Scientists are well aware that prevention of milk fever is much more profitable than treatment of individual cases once they occur. By accepting the concept that cows with a total serum calcium of less than 2 mmol/L can be more at risk of developing postpartum diseases such as milk fever, retained placenta, metritis, ketosis, left displaced abomasum and subsequently decreased appetite and poor production, we were able to evaluate tests that can be used in dairy cows to improve producers' and veterinarians' abilities to detect hypocalcemic cows.

## Abstract

### Insemination of cattle with semen from a bull transiently infected with pestivirus

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When 73 heifers (60 of which were seronegative to pestivirus) were inseminated with pestivirus-contaminated semen from a transiently bull, the conception rate to a single insemination was found to be normal (65 percent). Only three animals became systemically infected, as determined by viraemia and seroconversion. Pestivirus was isolated from the reproductive tracts of

two of these heifers when they were slaughtered 42 or 43 days after insemination. Although the initial incidence of infection was low, a cycle of secondary transmission occurred approximately 29 days after insemination, with a further eight heifers (all seronegative) becoming infected from one group of 11 seronegative and four seropositive animals.