



# LIVER MINERAL CONCENTRATIONS OF DAIRY COWS ON REDMOND MINERALS

For the past 60 years, **thousands** of customers and **millions** of animals have used Redmond Agriculture's program and never looked back. Switching to Redmond is a small shift that makes a **huge difference**.

## Introduction

During economic difficulties several dairy farmers that were using Redmond products had independently decided to cut all other salt, minerals, and sodium bicarbonate out of their rations. They reported that the cows did not only hold the same levels of health and production, but actually improved.

We also learned of a dairy veterinarian, not associated with Redmond, who had been seeing minerals fed in excess and was using liver biopsies to substantiate his minerals management decisions.

Because of all these findings, we decided to measure the liver mineral levels on many of these herds to determine if the data would support the field reports.

## Objective

To determine the liver mineral concentrations of dairy cows consuming Redmond Premium Mineral Salt and Redmond Conditioner (SR 65 and SR 50) as the only mineral supplementation for an extended period of time.

## Procedures

Four herds, two in Pennsylvania, one in Washington, and one in Idaho were chosen because they were using only Redmond Minerals (SR blends) as their mineral program, having removed all other minerals from the rations, and the minimum time under this protocol was ten months up to two years. Milk production ranged between 65 and 95 lbs/day. Six cows were randomly chosen from the high group (none over 100 days fresh) so the cows would be under highest stress levels. The local veterinarians took the liver samples and Michigan State and Utah State Universities performed the analyses.



## Results

The following chart shows the normal ranges for each mineral analyzed, and the actual level found in the cows.

## Conclusion

Average to high producing cows fed Redmond minerals for extended periods of time show promising results when looking at the liver mineral concentrations. Many reports from all over the globe, including these four herds, have seen the improvements in health and production that substantiate the findings in this research project. Redmond could be considered the foundation of the mineral program, adding what is needed according to local circumstances.

