



CLIMATE CHANGE ADAPTATION PROGRAM

A Guide to On-Farm Demonstration Research

Case Study 2

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CASE STUDY 2 *from:*

A Guide to On-Farm Demonstration Research

How to Plan, Prepare, and Conduct
Your Own On-Farm Trials



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Climate Action Initiative
BC AGRICULTURE & FOOD



CASE STUDY

Using Science to Guide Decision-Making

There are dozens of forage varieties available on the market today, each advertised as better than the next. How does one decide what to seed? Longtime Vanderhoof, BC hay producer, Traugott Klein, decided to use science instead of guesswork or popularity to guide his variety decisions.



“I was expecting a difference between varieties but I had no idea what that difference would be”

– Traugott Klein

“Farmers often want to plant what’s hot in the industry but they don’t take into account that the growing conditions on their farms are totally different than they are elsewhere. Bringing in varieties just because everyone else is using them elsewhere just doesn’t work,” says Klein.

In mid-June, 2015, Klein seeded 36 ft wide strips of each of six alfalfa varieties (Stealth, Hybrid 2410, WL 319 HQ, TopHand, Dalton, and Leader) at 18 lbs/ac into an irrigated field.

CASE STUDY, *continued*

USING SCIENCE TO GUIDE DECISION-MAKING

A year later, Klein measured the forage quality of each variety at every stage of maturity as well as their yield at first cut. The results were very different: while WL319HQ, Hybrid, Leader and TopHand all achieved high crude protein early in the season (vegetative through late bud stages), the crude protein values dropped steeply as the season progressed. Only Dalton and Stealth maintained high protein until cutting.

"Each variety has an ideal time when its protein and relative feed value are highest. The problem is, you often can't harvest at the optimum time because the weather isn't right. For some varieties, you'd need to be cutting in the middle of June, which you can't do up here," he says.

Klein says the results from his studies will make a real difference for his farm business.

"The effort we invested was definitely worthwhile. I was expecting a difference between varieties but I had no idea what that difference would be. Now I know that, for here, Dalton and Stealth are the best fits.

"I'd really encourage other producers to do their own studies since other varieties might better suit their conditions. Harvesting alfalfa with higher protein can make a huge difference – sometimes as much as \$100/ton – in what you can get for the hay. That can make or break your business."

