3-2-11
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Methow Valley News Online

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Study suggests Methow can feed itself, and more

By Amy Stork

A packed house at the Twisp River Pub April 7 got a dose of optimism from local scientists' answer to the question, "Can the Methow feed itself?"

Conservation scientist Hans Smith and botanist and farmer Anaka Mines, with encouragement from botanist Dana Visalli, set out to determine the valley's human "carrying capacity" – the number of organisms of any given species that can be supported by an ecosystem without exceeding that system's resources.

"The systems we have are seeming less and less secure," said Smith, pointing out that most of the food eaten by valley residents today requires lots of fossil fuel to arrive at our stores and restaurants – and that fuel supply won't last. "I just had a son, and I am concerned about the future."

Building from a similar study conducted in northern California's Mendocino County, the group first defined a balanced diet of foods that can be cultivated or raised in this climate. They then developed a crop rotation model that would allow all of the needed foods to be produced without losing soil fertility or importing fertilizers. The model included livestock, grains, legumes, oil crops and fruits and vegetables.

"Using this system, 15 acres feeds 21 people, while conserving the soil and recycling the nutrients," said Mines. "Crop rotation is a basic tenet of sustainable agriculture."

Smith then took county maps showing irrigated farmland in the valley, and overlaid them with conservation data describing steep slopes or other land that could not be farmed.

The final tally: 11,887 acres of irrigated farmland north of Black Canyon could conceivably feed 16,000 people.

Mines and Smith were quick to emphasize that they aren't advocating tripling the population of the valley.

"We don't want to take it to the max," said Smith. "We're not suggesting we should attain a certain population size."

"Really we've come up with more questions than answers," Mines said. The study focused only on food – it did not take into account other limiting factors such as access to fuels, shelter and clothing materials, iron for tools, and medicine.

The level of food production predicted by the model also didn't include possible changes in water availability, such as the reduced snowpack predicted for the North Cascades due to climate change.

While the valley's current population of about 5,200 people could easily be fed solely from local resources, following the diet and farming methods used to create the model would require major lifestyle changes.

"There really isn't a constraint as far as the land base," said Smith. "It really is a social question."

"It was very encouraging," said Carlton resident Tina Griffith after the event.

"I think the modeling gives people an idea of how things work as a system," said Joyce Studen, an Ohio resident who was in town visiting her son, pub owner Aaron Studen. "The local food movement has been of interest to a small number of people for a long time. Now more people are starting to think it might be important."

The event was part of the Methow Conservancy's First Tuesday lecture series. Mary Kiesau, who coordinates the series, said hearing the study results made her glad the Conservancy does a lot to protect working farmland.

"When we talk about the 'what ifs,' it'll be important to have land that can be farmed," she said. "And we need intact ecosystems that can support the community."

Graphic courtesy of Anaka Mines and Hans Smith
One model of efficiently using the land to provide for complete nutrition of local residents includes rotating crops (over 15 acres in this example) to provide a variety of livestock forage, grains, vegetables and flowers .

Date: 04-15-2009 | **Volume:** 106 | **Issue:** 48