

*Commentary***Note on diversity of crops extension****Vachani Perdue\***

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**INTRODUCTION**

Agricultural producers are already diversifying their cropping systems to address crop production issues such as rising land prices, higher input costs, variable weather elements, growing demand for new products, and so on. These issues are already making it difficult to increase earnings per acre from classic crops like alfalfa Northern Nevada Business Weekly Report, 2008. As a result, concerns about sustainability have sparked interest in crop diversification among agricultural producers throughout the world.

Crop diversification refers to the cultivation of more than one crop in a given region. Diversification can be achieved by introducing a new crop species or variety, or by altering the present cropping system. Adding new crops to an existing rotation is a common example. Diversification may also be used to substitute low-value commodities such as vegetables and fruits with high-value commodities. It can also involve agricultural and livestock integration, which is referred to as mixed farming. Crop diversity includes crop species diversity, varietal variety within crop species, and genetic variation within crop species, among other things. It's widely acknowledged as one of the most practical, cost-effective, and reasonable approaches to creating a resilient agricultural cropping system.

Crop diversification allows agricultural households to spread their production and economic risk among a wider range of crops, lowering the financial risks associated with bad weather or market shocks. Growing a variety of fruits and vegetables may also benefit financially by increasing market possibilities. In some locations, including a range of crops can lead to the establishment of new agriculturally based companies, boosting a rural community's economic potential. Furthermore, diversified agricultural systems offer humans and cattle with a more varied and healthier diet.

Breaking insect and disease cycles, minimising weeds and soil erosion, and preserving soil moisture are all agronomic benefits of growing many crops on the same piece of land. The more diversified an agricultural system's plant, animal, and soil-borne organism populations are, the more diverse the population of beneficial pest-fighting bacteria in the soil. This strategy might help the farm's bottom line by lowering production costs and raising gross income. For example, incorporating legumes into the rotation lowers nitrogen fertiliser costs or increases the number of crops in the rotation two or more, resulting in fewer insect issues and lower pesticide costs.

Some of the possible benefits of increasing crop diversity on the farm are listed below:

Increases farm revenue for small farms.

Supports the ability to resist price fluctuations in commodities.

As a result of climate change, it provides resilience to highly unpredictable weather conditions.

Increases profitability by lowering production costs.

Provides a more diverse and nutritious diet for both people and cattle.

Reduces the number of pests, such as illnesses, insects, and weeds.

Beneficial pollinator numbers are increased.

Improves the quality of the soil.

Increases the number of job opportunities.

Crop yields and product quality may be improved by rotating crops in different ways.

Agricultural intensification may have diminished crop biodiversity, notwithstanding its enormous success in satisfying the requirements of a rising global population in terms of

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food, feed, and fibre depicts variations in crop diversity in the United States as a whole during a multi-year period. However, researchers discovered that there has been no major change in crop diversity in the Basin and Range regions, which include most of Nevada and parts of other western states, over several years. Ninety per cent of Nevada's acreage is used to grow alfalfa or grass hay, and there is little crop diversification. The blacked-out region depicts changes in the species cultivated in Nevada during the last three decades.

Always be on the lookout for new strategies to diversify your farm and markets. Consider whether crops are a suitable fit for your soils, climate, accessible equipment, irrigation, and proximity to buyers when choosing new crops. Before planting any new crop species, a producer should always do

a comprehensive analysis of possible crops and markets to maximise their chances of success.

The easiest way to find out if a new crop species has been cultivated in the region before is to go through the Reno Extension's web resources or speak with local Extension employees. Over the previous few years, crops have been cultivated in Nevada. It's usually a good idea to seek out other growers who have expertise with the crops you're contemplating. Before planning large-scale production, the producer should start with a modest acreage with any new crop species. Producers must improve their expertise in areas such as production, management, pest control, harvesting, and marketing of the new product.