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**For Immediate Release**

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**Is intercropping an alternative agricultural system for Southeast Colorado?**

**By Wilma Trujillo**

Intercropping is an old practice, where two or more crops are grown at the same time on a single field. This farming practice was very popular before the 1940's in the USA. But with mechanization and the availability of relative cheap commercial fertilizers and pesticides, growing only one crop in a field at a time, monocropping, became the economically efficient way to go.

Under monocropping, crop yields increased dramatically. For example, corn yield increased from an average of 30 bu/Ac in the 1940's to 165 bu/Ac in 2009. Today, fertilizer shortages are developing and costs are increasing. There are also environmental concerns associated with heavy fertilizer and pesticide use. Meanwhile, the lack of diversity in monoculture is fostering weed problems, as well as increased insect pressure. Despite substantial pesticide use, crop yields continue to be threatened by weeds, insects, and diseases resulting from increasing pesticide resistance, out-break of secondary pests, and susceptibility in the plants. As these and other problems with monocropping are becoming more apparent, farmers are turning back to intercropping systems as part of the solution.

Across the country, intercropping is slowly being adopted as an alternative to monoculture. In the Midwest, grain crops are planted with a legume, which may itself be a crop or may be grown as a cover crop. But in dryland regions, most grain farmers prefer to stick with grain, not being willing to give up their cash crop for a year of legume without good ways to market that crop.

One reason why intercropping is becoming popular is that it is more stable than monocropping. Economically, it is less risky in that if one crop fails, another or the other may still be harvested. Where environmental stress is common, intercropping could be insurance against total crop failure. The stability of intercropping systems is mostly attributed to the partial restoration of diversity lost under monocropping. The most well documented advantage of intercropping is reduced damage by insects, nematodes, and disease.

Choosing and managing intercrops requires good planning that includes selection of crops, proper spacing, seed rates, and fertilization rates. Agronomic recommendations simply do not exist. Generalization of recommendations may not be possible because of the number of intercropping combinations possible and the myriad of climatic and soil conditions. The biggest obstacle in adopting intercropping systems is to conceptualize the planting, cultivation, fertilization, spraying, and particularly harvesting more than one crop in the same field. Giving all the intercropping advantages and the environmental and economic problem facing current farming practices, it is reasonable to think

about the possibility of growing more than one crop in a field and at the same time. But before intercropping can be widely adopted by farmers, more research is needed.

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