## "This capitalization of regrowth converts to profit per acre"



-by John Snider, Agronomist

## Using Supplementary Crops and Sunlight for Feed and Renovation in Organic Farming



Utilization of the Relay crop

Organic farms in the western United States are learning that their most available source of fertility is Sunlight, and that it is FREE!

The organic industry has an overwhelming array of available crop fertilizers, but no instilled confidence in their use, let alone their efficacy. Certainly more work needs to be done to determine the return on these products. Counter to this, the photosynthetic conversion of green growing plants and living roots into money via the rumen of livestock is a reliable option and taking hold once again.

Green manure and soiling, practices that use growing plants as means of fertilizer, were acts of survival in 18<sup>th</sup> and 19th century England. Farmers used turnips, a member of the Brassica family, for fodder and cover crop, increasing food production by 300%. These practices reinvigorated the weak and sickly Ley system of 1 year of wheat to pay the rent with 3-4 years of grass to recover soil health.

They say the turnip drove the Industrial Revolution, aiding in more food, higher birthrates and emigration. The turnip and rutabaga then followed

the movement to Australasia. There, warmer winters and drier summers meant new innovations in plant breeding, specifically forage brassicas. Sequentially, the taproot developed. Forage brassicas not only survived hotter and drier weather, but also offered extended grazing over multiple seasons.

Green Spring Farms, a regenerative farm management company owned by Farmland LP, has an organic farm located in the San Joaquin Delta of California that integrates a grazing crop system.

Last year following a tomato harvest, they planted a relay crop that included Winfred Brassica, Graza Radish and Tonic Plantain to cycle nutrients and use more sunlight. The days of idling \$15,000.00/acre California farm ground for the winter is over. After all, it is the land of sunshine.



Frank squatting amongst the Winfred

Frank Savage is a lifelong cow and sheep man as well as the Ranch Manager for Farmland LP. He knows his production well since he is paid on the gain. We estimated the dry matter production of the relay crop to be 10,000 lb/acre at first grazing. He then calculated that a crop of lambs consumed 8,700 lb. The rest, consisting of manure, urine and green

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carbon exuded through the living roots, converted to food for the soil.

His land has good cover and plenty of residual growth to integrate multiple grazing. This capitalization of regrowth converts to profit per acre; just ask him. He knows that animal performance has a direct relationship with crop residue. He is converting the fertilizers left over from the tomato crop into a food source for all the creatures above and below ground.

The Relay concept saves time, money and undo tillage. His Winfred and Graza are nurturing the ryegrass, Gala Brome, clover and Tonic Plantain within the mix. He expects this crop to supply him with more feed of higher quality and longer into the next year.

So Forage Brassicas, progeny of the common Turnip with its magical world changing properties, are taking the confusion out of soil correction and crop fertilization. The solution? Grow your own brassicas and use the sunlight.



Residual after first grazing.



Second grazing in 30 days

John Snider is the marketing agronomist for PGG Seeds, a New Zealand based company that develops and offers a wide range of proprietary forage and pasture products in the United States market. John is the "boots on the ground", offering personal visits to your farm operation where he takes a direct look at your system and gives the best recommendation based on your goals. He ensures the best match of seed cultivar to the farm system, soil types and climatic conditions to maximize productivity for the end user. You can reach John via phone 541-510-5000 or email pggseeds@gmail.com.