Developing a Small Scale Perennial Cropping and Poultry Production System The Main Street Project, Northfield, Minnesota

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The Main Street Project in Northfield, Minnesota has developed a holistic farming system that utilizes forest farming and alley cropping and recycles waste whenever possible. The Freedom Ranger breed of broiler chickens free range in heavily planted paddocks of perennial woody hazelnuts, sweet corn, sunflowers, and sprouted forage crops like barley, flax, camelina, wheat, and others. Also on site, annual vegetable crops are alley cropped between rows of perennial elderberries. Chicken manure is used both fresh to fertilize the perennial paddock as well as through sheet composting in the annual alley crops. Paddock management and managing chicken access is important with this system. Paddocks need time to rest so avoid damage and enable seeded grains time to grow.

The model is designed to be scalable with production 'units' of 1000 freedom ranger chickens per flock free ranging on paddocks within a 1/2 acre production unit, with the maximum intended scale at 8 units (8000 chickens on 4 acres). A 8-unit production unit farm is considered an Economic Unit with a total annual production capacity of up to 4 flocks or a maximum total of 32,000 broilers per farm per year plus related stacked enterprises. Although the keystone

enterprise is the broiler chicken, hazelnuts, elderberries and annual vegetable crops provide additional income and directly support the environment for healthier poultry production.

Recent ongoing analyses have determined that producers managing one production unit with this system are earning a net return on their labor of between $15 and $20 per hour. While these figures are promising, this analysis was conducted in a year where corn prices were at a multi-year low. Additionally, start-up costs that include chicken coop production were not considered as these facilities already existed as the farmers adopted the system. Yearly net returns are expected to fluctuate based on these and other factors. Those adopting this system need to consider the greater infrastructure their local food system offers. Producers will need access to state or federally licensed meat packing facilities in close proximity that have the capacity to process for smaller scale producers.

In addition to the potential for economic benefits, the symbiotic relationship between the free-

The Main Street Project model was designed to incorporate stacked enterprises with low entrance costs to assist immigrant farmers into agricultural entrepreneurship and increase the quality of life for those commonly at the bottom rungs of the agricultural ladder in the US. In addition to immigrant farmers, the University of Minnesota Regional Sustainable Development Partnerships (RSDP) believe this model could also appeal to beginning farmers and existing sustainable agricultural producers interested in diversifying their operations. Main Street Project and RSDP are working together with University of Minnesota researchers to conduct case study analyses of this system to address issues like food safety, worker health, business feasibility, product testing, and flavor analysis. With this knowledge available, prospective adopters of this system will be able to make more informe

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