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Development of Regenerative Agriculture in Gentinggunung Village, Sukorejo District, Kendal Regency

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Abstract

Scarcity fertilizer subsidies and high costs non-subsidized fertilizer cause The Gunung Makmur Farmers Group is taking different alternatives, namely make fertilizer liquid organic in a way collective with utilize materials that are around they. See potential dirt livestock that has not been maximized and only used part small. Activities training making fertilizer has facilitated by Lazismu Kendal, the group farmer follow training making fertilizer liquid organic with facilitator practitioner agriculture Healthy from PT. Independent Earth Workshop. Aspect which become problem is related making fertilizer that is still use manual way, not yet use machine so that the production process is long and requires lots of energy, and conditions facility supporters who have not adequate. Activities devotion community that is done started from stage First that is preparation, doing licensing and survey field. Stage second that is activity devotion public through socialization about agriculture regenerative with method lectures, training making fertilizer organic through method practice directly. Stage third that is stage evaluation activity through method *pre-test post-test*. Evaluation results show that existence improvement knowledge farmer to agriculture regenerative and manufacturing fertilizer liquid. Farmers also participate participate in a way active in the process of activity discussion.

Keywords: Group, Agriculture Regenerative, Fertilizer Organic Liquid

INTRODUCTION

The more Lots manager land agriculture requested For fulfil mutual needs contradictory For support improvement production global food and increase sustainability landscape agriculture, while adapt with impact change climate (Brown. K et al, 2022; Smith. P, 2013). The practices that have been give contribution For fulfil rapid growth in production agriculture is use fertilizer chemistry, agriculture intensive which has an impact on the decline health service ecosystem main, such as land, water and diversity life (Baude. M et al, 2018). Changes climate influence system life, including environment agriculture and food. Temperature high air, drought, floods, and unpredictable weather stable, threatening production plants and animals that become source food man.

At the moment many are questioning sustainability system agriculture conventional and opinionated For switch to agriculture a friendly alternative environment. Change system agriculture with method maintain production food, support service ecosystem, and overcome challenge change environment, depending on the manager land agriculture that has skills capability and capacity For reach things (Gosnell. H et al, 2020). Worldwide, increasingly Lots manager land agriculture switch to use system regenerative as method For respond challenge change climate (Sololiev. ER et al, 2017). The term ' agriculture regenerative ' was first coined by Robert Rodale, who argued that through approach This system agriculture can in a way simultaneously regenerate nature and produce product sufficient agriculture For fulfil need social, economic farmers and their communities ((Brown. K et al, 2022). Agriculture regenerative represent practice health - focused agriculture land, sustainable productivity, and strengthening sovereignty food local. Apart from that, agriculture regenerative also plays a role important in reduce impact change climate and mitigation effect House glass.

Mountain Farmers Group Gentinggunung Village Fortune, District Sukorejo, Kendal Regency is one of the the group that started apply system agriculture regenerative For commodity agriculture vegetable since 2022 in the land area 10 hectares area The difficulty get fertilizer subsidized and its

supply is every year reduced because of one of the causes, farmers switch to agriculture regenerative. Utilizing dirt livestock that during this has not yet been utilized with good as fertilizer and training making fertilizer organic liquid by practitioners agriculture Healthy from Earth Independent Workshop through intermediary Lazismu Kendal. Fertilizer liquid made from materials derived from the environment around the village, such as fruit mengkudu, mojo, utilize Trichoderma fungus on roots bamboo, and utilize snail for making amino acids.

Obstacles faced by the group farmer for the moment are limitations of equipment in making product fertilizer organic and its derivatives. During this they use manual way in preparing ingredients mentioned, for example chopping ingredients like grass, fruits and ingredients others, lack of place storage (drum) for fermentation fertilizer. During this related activities in agriculture regenerative nature self-reliance group farmer. In addition limitations of tools make public own reluctance for use fertilizer organic and still depends with fertilizer chemical. This is potential return farmer do practices cultivation that is not friendly environment. Therefore that, is very necessary improvement knowledge and understanding about agriculture regenerative.

METHODS

In achieving goals, activities devotion to public done through 3 stages main, including that is stage preparation like licensing and field surveys, activities socialization through FGD and counseling with method lectures, and evaluation use approach descriptive qualitative through pre-test and post-test.

Stages Activity

Socialization and coordination beginning

Activity prepare group farmer in do activity This in the form of meeting for socialize plan activity devotion at a time agree who and how mechanism implementation.

Counseling related with agriculture regenerative and *Pre-test Posttest*

Training *making fertilizer organic*

Activity training For convey theory and demonstration (practice) making fertilizer organic liquid, next participant will practice independent with accompanied by a facilitator

Mentoring

Activity mentoring This is part from monitoring And evaluation conducted during activity devotion implemented, guna menjaring constraint the time of the matter give breakdown problem For partners.

Evaluation

Activity evaluation always done before (*pre-test*) for know ability beginning participants, and after activity training finished conducted (*post-test*) in order to identify progress knowledge and skills partner use instrument evaluation.

RESULTS AND DISCUSSION

In accordance with objective activity devotion to society, all series activity has walk with good and smooth. As for the results devotion that has been done as following :

Coordination Activity

Coordination activity beginning done in convey plan activity in a way general. Likewise with giving help tools and machines agriculture (*alsintan*) is coordinated who will accept assistance, and placement tool mentioned. Likewise with coordination every activity training, communicated moreover Formerly with the Community that becomes partners, for get certainty time and place implementation activity.



Figure 1. Coordination activity devotion between team devotion with public

Socialization and Training about Agriculture Regenerative

Socialization and training about agriculture regenerative held on May 7, 2023 at the secretariat group farmer Mount Makmur, Genting Mountain Village Subdistrict Sukorejo, Kendal. Participants in activity This consisting of 15 people over 10 men and 5 women member group farmer. On the occasion the participant given awareness related with Agriculture Regenerative.



Figure 2. Provision of Material by Resource Person

Speaker start activity socialization with give understanding agriculture regenerative namely *Regenerative agriculture* or agriculture regenerative is principled farming increase quality land agriculture with rehabilitation and revitalization all over ecosystem, such as land and water. Practice agriculture This emphasize to water management, use fertilizer, and maintain diversity biological For create land healthy agriculture. With increase health land, level carbon and biomass captured plants will more many, quality product agriculture increased, and prices sell increased. As for example, *regenerative agriculture* Can applied to agriculture land dry and farm cow.

Next the participants given principle or technique main in agriculture regenerative with hope For increase quality soil, *regenerative agriculture* emphasize a comprehensive and dynamic approach in build ecosystem. Here four technique main agriculture regenerative.
Conservation Land Management

Utilization and processing land in a way massive and fast Can become reason effect House glass. Because, the way This erode land and create ecosystem that is not friendly for microbes. With apply minimum processing or without exercise land (*minimum tillage/zero tillage*), land No experience boredom and create a more environment Healthy as well as keep more Lots carbon.

Diversity

Increase diversity plants in the fields can help make land richer in nutrition and results agriculture more productive. Because, the diverse plants Variety will release different carbohydrates. Substances that are eaten microbes Can return many kinds of nutrition to plants and soil.

Rotation and Crops Ground Cover

Apply rotation plants and plants closing land in a way strategic can add material more organic many and varied. Farming methods this is also useful For avoid diseases and pests in a way natural. In essence, avoid plant plant with same type in the same location as well as let land No closed Because land Can eroded and nutrients For plant disappear.

Reduce Distractions

In addition to reducing disturbance physical in processing land, regenerative agriculture also prioritizes caution in give activity biological and chemical that can damage land in term long. Because, the use of fertilizer and correction land can bother connection experience microorganisms with root plant.

In session end done activity discussion and questions answer around agriculture regenerative which has delivered by the speaker. On this occasion it has also been agreed plan implementation agriculture regenerative with facilitate tool cutter grass / weeds For activity cultivation, and plastic drums For accommodate will fertilizer liquid organic



Figure 3. Discussion and questions answer



Figure 4. Discussion see place making fertilizer group



Figure 5. Demonstration plot Agriculture Chili Vegetables In Group Managed Organic

Machine Tool Facilitation Agriculture (Alsintan) for Farmers Group

Based on principle agriculture regenerative use machine cutter grass This more friendly environment, where machine This Can replace function herbicides that leave residue in land and its occurrence resistance grass to material chemistry. Another advantage of use machine cutter grass is got it material For making compost. Grass Can collected and made compost that has been This has done by a group farmer.

In general aspect economy farmer Can save cost weeding grass. More from that, the cost buy herbicide Can pressed until zero rupiah. Machine cutter grass No only facilitate For cutting grass but the time needed is also more short and can speed up the work of farmers. The facilities provided through means agriculture This expected can change behavior farmer in reduce practices preparation land No friendly environment like burn land and use herbicides.

Amount machine facilitated cut through activity This amounting to 2 pieces, with specification machine cutter grass 4 tax/stroke with material burn gasoline. In addition to the engine cutter grass,team devotion also facilitates plastic drums as many as 5 pieces. Plastic drums used as place manufacturing and storage fertilizer organic liquid.



Figure 6. Machine cutter facilitated grass to group partner

Training Making Fertilizer

In September 2023 it has implemented activity making fertilizer organic with utilise material standard local such as ; remainder vegetables results cultivation that is not used, fruit around village like noni, guava, papaya, and mojo fruit. Activities training done with method practice directly. In addition team devotees have also give composter drum facility For making fertilizer organic liquid.



Figure 7. Training making fertilizer organic liquid

Evaluation Activity Community service

Evaluation activity devotion to public use approach descriptive qualitative through pre-test post-test method. From the results of the post-test and discussion known happen improvement knowledge regarding the learning process that has taken place implemented, seen from instruments that have been shared and filled by each participant. Participants Already understand how and why choose agriculture regenerative, making fertilizer liquid organic and implement it For plant owned by they.



Figure 8. Mentoring and Evaluation Activity Service in Gentinggung Village

CONCLUSION

Based on the results evaluation conducted with method pre-test post-test evaluation, shows that socialization marketing online for farmers in Gentinggunung Village, District sukorejo, Regency Kendal has implemented with good. Indicator the main determining factor success devotion This that is existence improvement knowledge of farmers to agriculture regenerative and manufacturing fertilizer liquid organic and participatory active farmer in activity discussion and socialization. Activities devotion to public This is stage beginning about agriculture regenerative, next can done a mentoring and training For market fertilizer liquid If need For group has sufficient and available excess production.

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