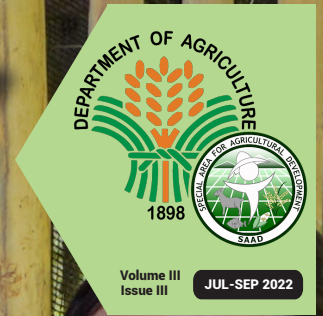


TUMAN

The Official Quarterly Newsletter of the Department of Agriculture - Caraga Special Area for Agricultural Development (SAAD) Program



RESILIENCY POST-TYPHOON DESTRUCTION

Recovery measures of SAAD poultry farmers in Bayabas, SDS

The Philippines' geographical location is considered strategic for goods distribution and trading. But it comes at a cost, being situated in the typhoon belt in the Pacific, the country is vulnerable to at least 20 typhoons per year.

In the last 20 years, it ranked fourth among countries most affected by climate risks. These extreme hazards, such as typhoons, floods, and drought, the World Food Programme (2021) reported, have a substantial impact on agricultural

chains and affect food production and consumption.

This susceptibility to destruction makes it harder for small farmers to maximize their farming potential, let alone start a new one. The Worldbank, in a 2000 published report, recommends sustained government support to provide direct access to input farmers.

Relevant to the pursuits of the Department of Agriculture-

Special Area for Agricultural Development (DA- SAAD) Program, 32 farmers' associations (FAs) in the Caraga Region were organized and provided with agricultural inputs packaged in livelihood programs since 2019.

Among these FAs is the Cabugo Chicken Production Association, a recipient of native chicken production with inputs and housing provided from 2019 to 2022.

SAAD-assisted farmers obtain hauling vehicles



SAAD-assisted FAs in Agusan del Sur (2) and Surigao del Sur (1) obtained hauling vehicles turned over at DA Regional Office, Butuan City, August 31.

As additional support in farming activities and to expedite transport of goods, three (3) farmers' associations (FA) engaged in abaca, camote, and corn production obtained hauling and delivery trucks from the Department of Agriculture- Special Area for Agricultural Development (DA- SAAD) Program on August 31, 2022.

The recipient FAs from Agusan del Sur include the Culi-ram SAAD Abaca Farmers Association (CuSAFA) from Talacogon, and Muritula USAD Farmers Association (MuFA) from San Luis, both engaging in abaca production; and the Mag-uumang Manobo sa Hinapoyan Association (MAMASAH) from Carmen, Surigao del Sur engaging in camote and corn production.

The three (3) hauling vehicles are worth 660,000 (1) and 670,890 (2). Vehicle-type interventions are considered under the negative list of the Program. However in 2021, the region proposed the said trucks under its regular target for FY 2022 upon request from the FAs to aid them in marketing their product lines. The justification for the said request was sent to the Department of Budget and Management (DBM) in 2021.

As of FY 2022, all three FAs are partially established community-based enterprises. They are already selling their produce. MAMASAH, aside from selling raw camote at a local farmers' market and neighboring municipalities, is also producing camote chips marketed in their locale.

CuSAFA and MUFA, on the other hand, are directly selling abaca fibers out from the SAAD-funded and existing plantations to consolidators within Agusan Del Sur. Both also received 11

stripping machines from FY 2019 to 2022. CuSAFA has 6 units while MuFA has 5 units.

The trucks are on top of the yearly inputs provided to the FAs from 2019 to 2022 which included planting materials, fertilizers, pesticides, tools and equipment as part of the package of interventions.

CuSAFA President Gil Gabales shared how the Program has improved their farming.

"Na bag-o, napadali, ug napasayon ang among pag-umang tungod sa tabang sa SAAD. Kung sa una pas-anon lang ang among abaca, karon haulon na og truck pinaagi sa DA," Mr. Gil said.

(Our farming has improved and eased up. Before, we load our harvest on our back and transport them by foot. Now, we can transport them with our truck.)

MAMASAH President Venancio Meniano also shared the same sentiment. *"Dako kaayo ni og tabang kay sa una madak-an nami og gasto sa pagdeliver pa lang sa market. Karon, ja-on na among service."*



(The truck is a big help to us. Transportation expenses are a huge chunk of our sales since we have to pay extra for delivery alone. Now that we have our own, we can lessen our expenses.)

Since these FAs are located in far-flung areas, they use improvised motorcycles to haul their produce from their farms and pay extra for the delivery of their products to their respective markets. With the trucks, they are expected to lessen their expenses.

The FAs also participated in the hands-on training on vehicle operation and maintenance facilitated by DA Regional Agricultural Engineering Division (RAED) personnel with representatives from the truck suppliers on the same day, August 31, 2022.

Regional Executive Director Engr. Ricardo M. Oñate, Jr. led the turnover with Regional Technical Director for Operations and SAAD Focal Person Rebecca R. Atega. They were joined by Representatives from municipal agriculture offices. ###

Abaca farmers in Caraga join grading and trading forum



Six (6) SAAD-assisted farmers' groups engaging in abaca production dialogued with fiber experts and traders, July 29.

Eighteen (18) Caraga abaca farmers assisted by the Department of Agriculture- Special Area for Agricultural Development (DA- SAAD) Program participated in the Abaca Forum held in San Francisco, Agusan del Sur, on July 29, 2022.

The abaca forum, organized by the SAAD regional team, sought to supplement farmers' knowledge on commodity, fiber classification, and value-added products. Aside from the farmers, fiber traders in the region, personnel from the DA-Agribusiness and Marketing Assistance Division (AMAD) and Philippine Fiber Industry Development Authority (PhilFIDA) participated in the forum, sharing technical knowledge during the lectures and open forum.

Abaca production is among the big-ticket projects of the Program with an allocation of Php 40.1 million provided to six associations in the municipalities of Talacogon (1), San Luis (2), Rosario (1), and Vuela (1) in Agusan del Sur, and Bayabas (1) in Surigao del Sur. Five of the projects were established in 2019, another one in 2021, with yearly support up to 2022, benefiting 356 abaca farmers in the region.

The FA members are old and new abaca farmers. With most projects expected to mass harvest by the fourth quarter of 2022, their immediate concerns include securing partnerships with traders.

To Gil Gabales, CuSAFA president, the forum addressed his long-time query about abaca fiber grading and classification. He and his members admitted to selling both S2 (high grade) and Binaba (low grade) fibers at the same price.

Table 1. SAAD-funded abaca projects in Caraga Region

| Municipality | Farmers' Associations | No. of beneficiaries | No. of hectares planted (ha) | Project Cost* (Php) |
|------------------------|--|----------------------|------------------------------|----------------------|
| Agusan del Sur | | | | |
| San Luis | Cecelia Abaca and Corn Planters Association (CeAbCoPA) | 100 | 115 | 7,857,445.39 |
| | Muritula USAD Farmers Association (MUFA)/Muritula Farmers Agriculture Cooperative (MUFACO) | 80 | 85 | 10,547,574.21 |
| Talacogon | Culliram SAAD Farmers Association (CuSAFA) | 66 | 53.5 | 9,984,563.59 |
| Rosario | Cosep Peoples Organization (COPO) | 40 | 40 | 3,619,509.22 |
| Veruela | Caigangan SAAD Farmers Association (CAFA) | 50 | 50 | 6,562,592.01 |
| Surigao del Sur | | | | |
| Bayabas | P-7 Panaosawon Farmers Association (PPAFA) | 20 | 20 | 1,484,933.80 |
| TOTAL | | 356 | 363.5 | 40,156,618.22 |

*based on actual (2019-2020) and allocation (2021-2022)

"Nakatabang ang forum aron kami mga farmers makahibalo sa grado ug balor sa among fibers. Karon, pwede nami maka negotiate sa mga trader aron ma presyohan og tarong ang fiber ug mas mo dako ang among halin," Gabales expressed.

(The forum helped us to know more about the grade and value of our fiber produce. We will negotiate with traders to value our fibers according to their grade so that we can also earn more).

PhilFIDA Supervising Science Research Specialist Marnelli Racsa encouraged the farmers to classify their fiber from

low to high grade right after stripping to prevent mixing them up and retain their value upon selling to traders.

The forum is part of the sustainability efforts of the Program in time for its Phase 1 conclusion this year.

This year, the regional management support office continues to assist all FAs in securing partnerships with traders in the region and linking them to other government agencies, such as the PhilFIDA, for technical assistance. ###



(from cover page)

Some farmers, especially in remote areas, require inputs and technical support to put up additional income-generating projects. But they should also come with resources that equip them to recover when hit by disasters. As exemplified by CACPA, project sustainability is highly attainable with complete-package aid, such as that of the Program, and external support pooled together.

CACPA

The 19-member CACPA is situated at Brgy. Cabugo, Bayabas, Surigao del Sur. Their primary source of income comes from rice and coconut production and fishing, having access to the coastal areas.

To provide the association with an additional source of income, especially during the rainy season, the SAAD Program provided the FA with Native Chicken Production project with an allocation of Php 2,397,976.67.00 (FY 2019-2022), which was the first of its kind in the locale.

Among the main recurring inputs they received were native chicken, feeds, drugs and biologics from 2019 to 2022. They also obtained two units of egg incubators in 2019 and 2021, while their two (2) poultry houses with perimeter fences were built in 2019.

The interventions under FY 2019 were completely delivered by May 2020. In June 2020, the FA started selling eggs.

In August 2022, the association reported an accumulated Php 81,837 income from selling eggs, chicks, and live-weight chickens (see Table).

| CACPA Sales from June 2020-August 2022 | | | | | | | |
|--|----------------------|-----------------|---------------------------------------|---|----------------------------|--------------------|--------|
| | Eggs collected (pcs) | Eggs sold (pcs) | Sales from eggs (6-7/pc;180-210/tray) | Sales live weight chicken (Php 200-250) | Sales from chicks (Php 35) | Other collectibles | TOTAL |
| 2020 | 3,271 | 2,341 | 18,372 | 1,750 | 2,565 | 1,160 | 23,847 |
| 2021 | 1,182 | 1,005 | 9,410 | 21,117 | 8,721 | | 41,780 |
| 2022 | 3,271 | 2,049 | 16,210 | | | | 16,210 |
| TOTAL | | | | | | | 81,837 |

According to Association President Potenciana Arnego, they could have earned more if not for the typhoons that hit their barangay in February 2021.

Struck by Auring

The association's production potential to grow big was halted for a while after being affected by Tropical Storm Auring in February 2021.

While the TS Auring did not directly hit Surigao del Sur, some parts of the province were massively flooded, including Bayabas, where the CACPA is situated.

"Apektado ang among manokan pag abot ni Auring. Ang atop ato baklasay na ug ang mga manok nangabasa. Nagkasakit sila unya sunod-sunod na dayon ang pagkamatay," said Potenciana

(TS Auring struck our poultry houses. It swept away our roofing and wetted all our chickens. They got sick and then followed the successive deaths.)

The heavy rain flooded their poultry houses and caused their chicken animals to contract diseases. Potenciana recalled a few times burying half a sack of dead chickens. By May 2021, they only retained 36 chicken animals from their 280 original stocks.

Recovery measures

CACPA was on the brink of failing. Their average production was around 3-5 eggs/day. Their president at that time also expressed her intention to step down due to a family matter. Without a president to lead their recovery measures, Potenciana, among the remaining eight (8) members, presented herself to take on.

"Padulong na failure ang among production. Ang uban ato nag ingon na mga mangundang na lang kita unsa pa man atong

bantayan? Dili ko officer ato nga time, pero nag presentar ko nga ako ang mag presidente kay sayangan ko sa librang tabang sa gobyerno," Potenciana recounted.

(Our poultry production was nearly failing. Some members wanted to quit considering we barely have chickens left to look after. I was not an officer at that time, but I presented myself to take the lead as president. I do not want to waste the remaining inputs provided by the government.)

The whole-package intervention of the Program not only supplements the day-to-day needs of the association but also includes interventions that help them recover from abrupt destruction.

The incubators provided to CACPA were instrumental in replenishing their breeder stocks post TS Auring.

"Nag palit ako og duha ka trays ka itlog sa sa ka poultry house sa pikas barangay. Ako dayon gi-incubate. Halos perfect ang incubation mao tong naka hatch mi og daghan nga piso," Potenciana detailed.

(I bought two trays of eggs from a poultry house in a nearby barangay, and I incubated them. We produced a ton of chicks at that time because the hatching rate was nearly perfect).

Including the few collected eggs from their remaining stocks, they incubated around 400 eggs in three months. By September 2022, CACPA reported a total of 334 new chicks, which they kept to replenish their breeder stocks.

Lessons learned

Potenciana recounted some of the lessons she learned after taking on the presidency. Managing poultry production, according to her, requires vigilant eyes and ears.

Some association members raise chickens in their backyard, but the livelihood provided by SAAD is the first small-scale production involving more than a hundred chickens they have managed.

With the chickens' vulnerability to diseases post-typhoons, such as the Infectious Coryza that cause facial swelling, nasal discharge, lacrimation, and diarrhea, they started rigorously checking their chickens twice a day.

The remaining eight take turns caring for the chickens, feeding, and providing them with vitamins.

The newly-hatched chicks, as well, need a close watch. Right from their first day, they should be supplemented with vitamins in their drinking water. Those who appear to have health issues should be segregated. They secured a quarantine area set 000 meters from the poultry houses.

"Pagsugod ng recover, daghan na kaayo piso sa balay. Daghan na kaayo ang mga mag sunod-sunod sa ako. Ngadto na mas ganahan ang mga miyembro. Na aktibo na balik among association. Balik na dayon mi adto baliya," Potenciana shared.

(When we finally replenished our stocks, some members rekindled their interest in the project. They became active again. By then, we resumed marketing some of our produce).

The association also sought external support to repair the roofing of the poultry houses. To Potenciana, who led the solicitation to a local politician, it taught them the value of looking for other, external ways and means.

"Naka solicit mi og 50 ka panid nga sin, 6 kabook nga plywood, puso, tubo, ug 10,000 cash," Potenciana added.

(We solicited 50 roof panels, six (6) pcs of plywood, water pump and tubes, and 10,000 cash).

They used the extra 10,000 cash they solicited to pay for the construction labor.

The barangay officials, showing full support to the start-up poultry, also sponsored the electricity consumption of CACPA, which would have cost them around Php 2,000 since they also run incubators. To return the favor, they occasionally give free eggs and chickens to the barangay.

By the end of September 2021, after three months of recovery measures, CACPA reported having recovered from the impacts of Auring, with an inventory of 411 chicks. One month later, they qualified for the provincial level of the SAAD Saga in Caraga, promotional activity of the Program in 2021, which recognized the exemplary associations in the region and showcased their products.

CACPA at present

Since replenishing the stocks in September 2021, CACPA has marketed its eggs in the locale and sold chicks and live weight.

CACPA members have already conducted income sharing thrice. In 2020, they shared P500.00 among 20 members, and in 2021 P600 and P1000 among 8 active members.

"Kung wala mi pang sud-an, naa mi madali-dali nga source. Bag-o

lang, nag bahin mi sa tulo ka tray nga itlog," added Potenciana. (With the poultry project, we have an immediate source of food. In May this year, we apportioned three trays of eggs among the eight remaining members).

As recognized by the Food and Agriculture Organization (FAO), small-scale, low-input poultry contributes substantially to food security, especially in rural households, which are vulnerable to natural disasters.

True to the primary goal of the Program, which is improving the food production in areas with high poverty incidence, the poultry project in Cabugo serves as an additional food source for its residents, all the while diversifying the agricultural production in the locale.

The association is now focusing on egg incubation; however, as a common threat in poultry, especially during the dry season, they are dealing with rats attacking their eggs and chicks. They also reported intrusions of monitor lizards twice.

They also experience blackouts. While occasional, sometimes the occurrences last for two days, which is why some of their incubation attempts fail.

To address these, they set up traps and made sure to put their chickens back to their houses after grazing, just before dusk. Constructing a separate house out of metal screens is also proposed to secure the chicks from the rats. The Program also allocated a generator set for the FA under FY 2022.

They decided to stop incubating eggs to resume in July to avoid further damage.###



CACPA members participated in the Results-based Monitoring and Evaluation Rapid Appraisal (RBMERA) conducted by SAAD National, June 22.

DA-SAAD wraps up 1st sem, sets turnover of Phase 1 projects in 2023



SAAD Caraga regional and provincial staff convened to assess the Program's accomplishments in the first semester and remaining directives for the 2nd sem, August 11.

The Department of Agriculture-Special Area for Agricultural Development (DA-SAAD) Program Caraga capped off first semester implementation, highlighting 67 training accomplished on crops and animal production, and people's organization development; accomplishing 72% on financial obligation and 91% achievement rate of physical targets.

The region executed 29 out of 32 projects targeted this year. These projects include poultry and livestock production such as white leghorn, native chicken and goat; industrial crops such as abaca and cacao; grain crops, such as corn and rice; and root crops, such as sweet potato and ube. As of August 2022, there are 1,106 beneficiaries and 32 farmers' associations (FAs) that benefited from the line of SAAD projects.

Among the program's major accomplishments include conducting provincial stakeholders' consultation in April, which enabled the 32 assisted FAs to craft their sustainability and action plans for FY 2023 onward. In the long run, FAs are expected to become cooperatives and established suppliers of agricultural products in their local and neighboring municipalities.

Upon conclusion of the program, the 2023 implementation will focus on crafting the FAs' sustainability plans to strengthen market and agency linkages and introduction to other state or non-state operated institutions to gather support from local government units, including seeking relative inputs and technical support to extend the entrepreneurial endeavors of the FAs

Further, from February to May, the region facilitated 67 training relative to (1) social preparation, such as organizational development, values formation, and financial management; (2) specialized/technical skills related to animals and crops production; and (3) marketing assistance and enterprise development, such as product development, market identification, postharvest technology, processing, and harvesting.

Majority of these training center on production management, especially for big-ticket projects such abaca and cacao production that require sustained care and maintenance. Training on value-adding and product development were also covered, particularly in sweet potato and ube production.

Relative to the Phase 2 implementation, covering Surigao del Norte, Dinagat Islands, and Agusan del Norte, the regional team also conducted pre-entry meetings with the 14 target municipalities. In coordination with the municipal agriculture offices (MAOs), the



SAAD-assisted farmers from San Luis, Talacogon, Veruela, and Rosario, Agusan del Sur in attendance during the Stakeholders' Meeting in San Francisco, ADS, Sep 13.

program planned to establish 28 FAs in areas with high poverty incidence and were devastated by Typhoon Odette in 2021, mostly near coastal zones.

Field Operations Division OIC-Chief Melody M. Guimary led the activity and extended her gratitude to the team for its contribution to the overall goal of the DA. She also encouraged the staff to put the farmers' interests at the forefront of intentions, especially during the planning stage.

"Nalipay ko nga apil ang SAAD Program sa pagtabang sa mga mag-uuma sa Caraga. Padayon lang ta sa atong misyon isip usa ka department nga mao ang padayon nga makatabang sa atong mga mag-uuma. Sa atong pag plano, dapat siguradohon nato ang ilang mga interes aron epektibo ang pag-address sa ilang mga paninahanglanon," she said.

(I am glad that we have the SAAD Program as one of our partners in extending support to our farmers. Let us continue our mission as one department that is to be of aid to our farmers. In planning, let us consider their interests to effectively address their needs.)

The deliverables of the region for the remainder of the year include profiling of the farmers to be transmitted to the national information database. The staff will also lead another round of consultation meetings with stakeholders in September to plan the turnover of 32 livelihood projects of assisted FAs to LGUs in 2023. Endorsement to the DA regular banner programs is also in the works for possible additional support and complementation. ###

DA-SAAD prepares for turnover of Phase 1 projects



SAAD-assisted farmers from Carmen, SDS, consult with Provincial Agriculturist Marco Quico during one of the breakout sessions of the Stakeholders' Meeting in Tandag, September 15.

Gearing up for SAAD Phase 1 culmination, 32 farmers' cooperatives and associations (FCAs) organized by the Department of Agriculture-Special Area for Agricultural Development (DA-SAAD) Program gathered to finalize the project sustainability plan in a series of consultation meetings on September 13-15, 2022.

In April 2022, the farmers' groups from Agusan del Sur (10) and Surigao del Sur (22) drafted their sustainability and action plan, which covers activities to sustain the livelihood projects funded by SAAD.

The recent stakeholders' meeting is focused on funding proposals to local government units (LGUs) and government agencies for possible complementation in the post-SAAD operations.

Farmers' groups from Agusan del Sur participated in the meeting on September 13, while the Surigao del Sur farmers' groups met on September 14-15.

DA-SAAD Caraga Deputy Focal Person Jekem D. Sanchez encouraged the FCAs to consolidate concerns from members from time to time, especially during monthly meetings, and to always seek assistance from the local government units and DA banner programs.

"Dapat mahibal-an unsa ang mga lakang sa asosasyon nga pwede nato ma request sa mga MAOs ug bisan sa regular programs sa DA para padayon ang suporta ug paglambo sa inyong asosasyon."

(It is important that as a group you identify your collective needs now and then and seek assistance from the MAOs, even through the regular programs of the DA for the sustainability and expansion of your respective projects.)

Project status

In Agusan del Sur, SAAD supports crop-related projects such as abaca, cacao, and rice. The cacao plantations are expected for harvest in 2023, while some of the abaca plantations were mature and ready for harvest (thrice a year) this year. Two farmers' groups from San Luis and Talacogon have also started consolidating fibers bought from their members.

Meanwhile, in Surigao del Sur, the projects are a combination of livestock such as upgraded native goat, native chicken, and white leghorn; and root crop production such as ube and camote.

Recipient FAs of the said projects have also started selling their produce, ranging from eggs, chicks, and live weight chicken animals. One FA in Carmen is also producing camote chips aside from selling raw camote that they sell in the local and neighboring communities.

Ways forward

SAAD Phase 1 employs a complete-package approach. Aside from the inputs provided yearly (FY 2019-2022), SAAD extends technical assistance such as organizational development, farm financial and production management, and value-adding training to aid the FAs in establishing community-based enterprises.

Refresher courses on financial management, record keeping, and standard operating procedures for meetings were also proposed by the FAs to be endorsed to the municipal agriculture offices, along with securing insurance from the Philippine Crop Insurance Corporation (PCIC) for qualified commodities.

The Program aims to assist the FAs to become established agripreneurs. As a relevant endeavor, some FAs also consider registering as cooperatives. While this is not applicable to all FAs, the Muritula USAD Farmers Cooperative, formerly Muritula USAD Farmers Association assisted by SAAD, engaging in abaca production, successfully registered as a cooperative this year.

The FAs will be formally turned over to their respective local government units by the 3rd quarter of 2023 following the finalizing and signing of memoranda of agreements in the 1st quarter. The LGU's roles for sustainability of the FAs will be determined after crafting the plan through technical assistance and possible market and agency linkages.

By then, the monitoring of SAAD projects will be carried out by the Agricultural Program Coordinating Offices in Agusan del Sur and Surigao del Sur.

To strengthen efforts for sustainability, requests for assistance are encouraged among the FAs through the other regular programs of the DA and relevant government agencies such as the Philippine Fiber Development Authority (PhilFIDA) for the abaca production management, and the Department of Trade and Industry for marketing-related concerns. ###

PAG KONTROL SA SAKIT SA ABACA



Abaca Bunchy Top Disease o Ugpong Virus

Mupong-pong ang dahon sa abaca. Dili na mutubo ug mamatay kini. Kini nga sakit mutakod pinaagi sa tigdala nga dugos-dugos (*Pentalonia nigronervosa*) ug pag tanum sa may sakit na nga igtatanu m.



Bacterial Wilt

Sama sa *Fusarium Wilt*, ang ilhanan sa *Bacterial Wilt* malayus ang dahon ug adunay pula hangtud itom-itom nga magtapok sa sulod sa umbak niini. Kini magpabilin usab diha sa yuta sa taas nga panahon.



Abaca Mosaic Virus Disease

Adunay yellow nga bagis-bagis ang tanan dahon sa abaca.



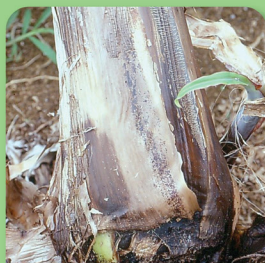
Bacterial Heart Rot

Usa kini ka *bacteria* o kagaw kung asa malata ang ubod niini ug muresulta sa pagkamatay sa tanom.



Abaca Bract Mosaic Virus Disease

Mukulot ang dahon ug mulukot pa ibabaw. Adunay batik-batik nga murag sa panit sa pipino ang palwa niini.



Dry Sheath Rot o Amag-amag

Mauga nga malaya ang umbak sa abaca apil ang ilalom nga bani niini. Paspas kining malaya ug mu gamay ang umbak nga makuhaan og lanot.



Fusarium Wilt o amag nga kagaw

Malayos ang tanum tungod sa kagaw (amag) nga gikan sa yuta nga mag puyo sa umbak sa abaca hinungdan sa pagkamatay niini.

Malata ug moitom ang punoan ug adunay pula nga puntik sa sulod sa umbak. Kini magpabilin sa yuta sa taas nga panahon. Maboak ang bani sa punoan nga bahin niini.

ROUGING (PAGLUKAT)

- 1 Esprehan og insecticide ang tanang tanum sulod sa unom ka metros palibot apan ipaulahi ang may sakit.
- 2 Kas-aha pagputol ang lindog o lawas sa abaca o saging nga tupong sa abaga.
- 3 Putol-putola ang mga dahon ug humpiron pinababag sa yuta.
- 4 Lukaton ang pungol sa tanan saha nganha sa punoan. Ipatung sa ibabaw sa tapok nga pinutol nga lawas ug dahon.
- 5 Esprehan pag-usab ang mga hinumpid nga mga dahon ug nilukat nga punuan apil ang nilukatan ug palibot nga yuta.
- 6 Sunogon ang mga apektado nga mga tanum aron dili na mokatag ang sakit.

PAG GAMIT UG KEMIKAL NGA PAM-PATAY TANOM (Herbicide)

Maghumol ug uga nga stick nga 6 ka pulgada kataas ug 2 ka sentemetro ka lapad sa puro nga *Glyphosate Herbicide* sulod sa 24 oras. Itupok ang hinumolan sa punoan sa masakiton nga tanom. Ang kadaghanon sa itupok nga stick nagdepende sa kadak-on sa punoan.

PAGSUMPO SA MGA SAKIT

Sa pagsumpo sa sakit sa abaca, importante nga hinlo ang palibot sa abacahan. Bantayan nga dili kontaminado sa sakit ang kuhaan sa igtatanum nga gamiton ug mag gamit sa disinfectant diha sa mga gamit sa pag-uma. Mag spray ug pistisidyo sa kontaminado nga tanum hangtud unom ka metro palibot aron ma-sumpo ang insekto nga nagdala sa sakit.

Kung adunay namatikdan nga sakit diha sa abakahan, kuhaon dayon kini pinaagi sa naandan nga paagi sa rouging o paglukat.



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