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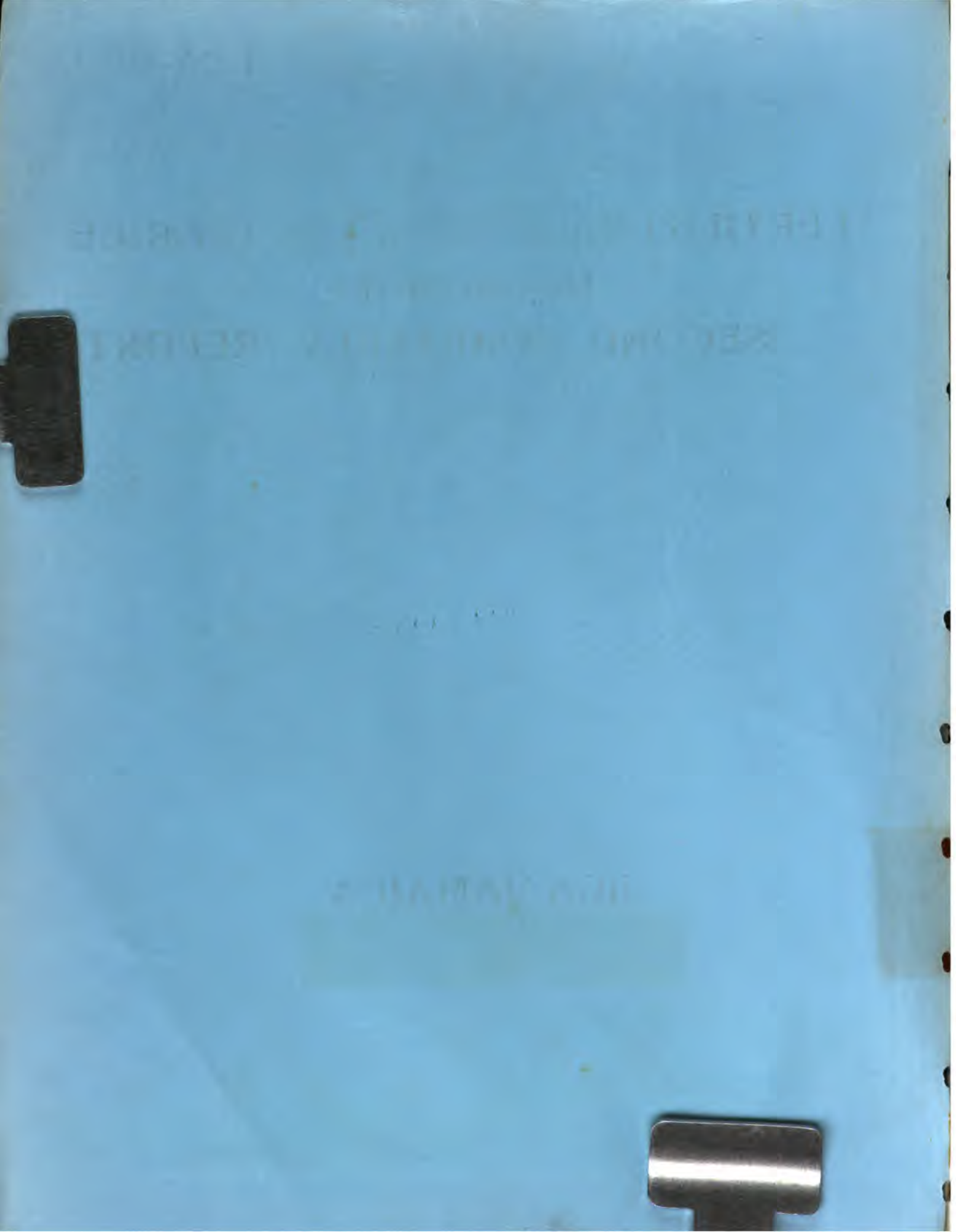
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FERTILIZER EXPERIMENTS ON RICE IN BRUMDEC (SECOND QUARTERLY REPORT)

IICA
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MISCELLANEOUS PUBLICATION #325
SERIES: ISSN-0534-5391



FERTILIZER EXPERIMENTS ON RICE IN BRUMDEC

(SECOND QUARTERLY REPORT)

BY

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IICA/JAMAICA

JANUARY 1982

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1. INTRODUCTION

This report is prepared in accordance with Article 6, Section 6.01 of the Agreement between the Black River Upper Morass Development Company Limited (BRUMDEC) and the Inter-American Institute for Co-operation on Agriculture (IICA).

The period covered by this report is July 27 - October 26, 1981.

2. PRINCIPAL ACTIVITIES

The report of principal activities is presented in Table 1.

3. PROGRESS REPORT ON EXPERIMENTS

Up to the end of the period under report only fertilizer experiments have been sown. The objective of the experiments is to identify quickly the fertilizer factors which individually or in combination enhance the growth and grain production of the rice plant, and to develop response curves which can be used as guides in the planning of future experiments and in the planning of fertilization of production fields of the rice crop.

3.1 Experiment R1/1/81

Sown on August 25, 1981. This experiment tests the response of the rice plant to three levels of nitrogen, three levels of phosphate, three levels of potash, and four levels of a micronutrient mixture. The levels tested are listed in Table 2. There are 108 different fertilization treatments in this experiment. The experiment is sited on Cashew Clay. The experimental design is a randomized complete block with two replications.

This experiment has progressed satisfactorily. The experimental site is small and manual levelling was sufficiently effective in providing conditions for adequate control of irrigation water.

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Table 1. Comparison of actual versus proposed work operations during the period July 27 - October 26, 1981

Operation	No. of days		Comments
	Actual	Proposed	
Land Preparation	27	50	Land preparation for two experiments in Field 9, two experiments in Field 5, and one experiment on the Morass Peat. The MF 290 tractor is not fitted with R2.0 rice and cane tyres and its output per day under the wet conditions prevailing during the period was low. The variance of 23 working days occurred when the said tractor was assigned to bush-cutting on the Morass Peat area. During that time no tractor was supplied to prepare lands for the rice research programme.
Experimental plot preparation	33	56	The time required to prepare experimental plots was longer than anticipated. Due to the difference in levels existing in the fields, large amounts of soil had to be moved manually. For the levelling of experimental plots under wet conditions a mounted back-blade is needed. Manual levelling has not provided levelled sites where the area occupied by the experiment is large.
Preparation of experimental material	10	38	Only four of fourteen experiments planned were sown during the period. Of the ten experiments not emplaced, two variety trials were delayed due to lack of seed. The remainder were delayed because no tractors were available to prepare fields.

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Bureau of Land Management
Washington, D.C. 20250

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Table 2. Levels of nitrogen (N), phosphate (P_2O_5), and potash (K_2O), and micro-nutrient mixture of Iron (Fe), Manganese (Mn), and Zinc (Zn) used in the fertilizer studies on Cashew Clay soil.

Level	Amount of fertilizer nutrient kg/ha (lb/ac)					
	N	P_2O_5	K_2O	Fe	Mn	Zn
0	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
1	56(50)	28(25)	30(26.8)	0.125(0.111)	0.125(0.111)	0.125(0.111)
2	112(100)	56(50)	60(53.6)	0.250(0.222)	0.250(0.222)	0.250(0.222)
3	--	--	--	0.375(0.333)	0.375(0.333)	0.375(0.333)

3.2 Experiment R2/1/81

Sown on September 4, 1981. This experiment tests the grain yield response of the rice crop to the levels of nitrogen, phosphate, and potash shown in Table 2. No micronutrients were applied. We experienced problems associated with poor water control in the site due to the large differences in levels existing in this portion of Field 9.

This experiment was sampled at 21 days after sowing (21 DAS) at which time both soil and plant samples were taken from each plot. The results of the soil analysis are not yet available. Dry weight data are presented in Table 3.

Table 3. Mean plant dry weight per 900cm^2 , mean number of tillers per 900cm^2 , and mean tiller dry weight, each at 21 DAS at each of three levels of phosphate applied before sowing.

Phosphate Level/Ha		Mean Plant Dry Weight (g)/ 900cm^2	Mean Tiller Dry Weight (g)	Mean Number of Tillers / 900cm^2
Kg P_2O_5	lb P_2O_5			
0	0	3.997	0.172	23.2
14	12.5	3.929	0.176	22.3
28	25.0	5.078	0.230	22.1

The first part of the document is a list of names and their corresponding addresses. The names are listed in the first column, and the addresses are listed in the second column. The list is as follows:

Name	Address
John Doe	123 Main St, New York, NY
Jane Smith	456 Elm St, Los Angeles, CA
Robert Johnson	789 Oak St, Chicago, IL
Mary White	101 Pine St, San Francisco, CA
David Brown	202 Cedar St, Boston, MA
Sarah Green	303 Birch St, Philadelphia, PA
Michael Black	404 Spruce St, Washington, DC
Laura Grey	505 Willow St, Miami, FL
James Blue	606 Ash St, Dallas, TX
Emily Red	707 Hickory St, Houston, TX
Christopher Purple	808 Cypress St, Austin, TX
Amanda Yellow	909 Magnolia St, San Antonio, TX
Matthew Orange	1010 Dogwood St, Fort Worth, TX
Stephanie Pink	1111 Redwood St, San Diego, CA
Andrew Green	1212 Sycamore St, San Jose, CA
Michelle Blue	1313 Juniper St, San Luis Obispo, CA
Christopher Purple	1414 Fir St, Santa Barbara, CA
Amanda Yellow	1515 Hemlock St, Santa Cruz, CA
Matthew Orange	1616 Spruce St, Santa Clara, CA
Stephanie Pink	1717 Cedar St, Santa Cruz, CA
Andrew Green	1818 Fir St, Santa Cruz, CA
Michelle Blue	1919 Hemlock St, Santa Cruz, CA
Christopher Purple	2020 Spruce St, Santa Cruz, CA
Amanda Yellow	2121 Cedar St, Santa Cruz, CA
Matthew Orange	2222 Fir St, Santa Cruz, CA
Stephanie Pink	2323 Hemlock St, Santa Cruz, CA
Andrew Green	2424 Spruce St, Santa Cruz, CA
Michelle Blue	2525 Cedar St, Santa Cruz, CA
Christopher Purple	2626 Fir St, Santa Cruz, CA
Amanda Yellow	2727 Hemlock St, Santa Cruz, CA
Matthew Orange	2828 Spruce St, Santa Cruz, CA
Stephanie Pink	2929 Cedar St, Santa Cruz, CA
Andrew Green	3030 Fir St, Santa Cruz, CA
Michelle Blue	3131 Hemlock St, Santa Cruz, CA
Christopher Purple	3232 Spruce St, Santa Cruz, CA
Amanda Yellow	3333 Cedar St, Santa Cruz, CA
Matthew Orange	3434 Fir St, Santa Cruz, CA
Stephanie Pink	3535 Hemlock St, Santa Cruz, CA
Andrew Green	3636 Spruce St, Santa Cruz, CA
Michelle Blue	3737 Cedar St, Santa Cruz, CA
Christopher Purple	3838 Fir St, Santa Cruz, CA
Amanda Yellow	3939 Hemlock St, Santa Cruz, CA
Matthew Orange	4040 Spruce St, Santa Cruz, CA
Stephanie Pink	4141 Cedar St, Santa Cruz, CA
Andrew Green	4242 Fir St, Santa Cruz, CA
Michelle Blue	4343 Hemlock St, Santa Cruz, CA
Christopher Purple	4444 Spruce St, Santa Cruz, CA
Amanda Yellow	4545 Cedar St, Santa Cruz, CA
Matthew Orange	4646 Fir St, Santa Cruz, CA
Stephanie Pink	4747 Hemlock St, Santa Cruz, CA
Andrew Green	4848 Spruce St, Santa Cruz, CA
Michelle Blue	4949 Cedar St, Santa Cruz, CA
Christopher Purple	5050 Fir St, Santa Cruz, CA
Amanda Yellow	5151 Hemlock St, Santa Cruz, CA
Matthew Orange	5252 Spruce St, Santa Cruz, CA
Stephanie Pink	5353 Cedar St, Santa Cruz, CA
Andrew Green	5454 Fir St, Santa Cruz, CA
Michelle Blue	5555 Hemlock St, Santa Cruz, CA
Christopher Purple	5656 Spruce St, Santa Cruz, CA
Amanda Yellow	5757 Cedar St, Santa Cruz, CA
Matthew Orange	5858 Fir St, Santa Cruz, CA
Stephanie Pink	5959 Hemlock St, Santa Cruz, CA
Andrew Green	6060 Spruce St, Santa Cruz, CA
Michelle Blue	6161 Cedar St, Santa Cruz, CA
Christopher Purple	6262 Fir St, Santa Cruz, CA
Amanda Yellow	6363 Hemlock St, Santa Cruz, CA
Matthew Orange	6464 Spruce St, Santa Cruz, CA
Stephanie Pink	6565 Cedar St, Santa Cruz, CA
Andrew Green	6666 Fir St, Santa Cruz, CA
Michelle Blue	6767 Hemlock St, Santa Cruz, CA
Christopher Purple	6868 Spruce St, Santa Cruz, CA
Amanda Yellow	6969 Cedar St, Santa Cruz, CA
Matthew Orange	7070 Fir St, Santa Cruz, CA
Stephanie Pink	7171 Hemlock St, Santa Cruz, CA
Andrew Green	7272 Spruce St, Santa Cruz, CA
Michelle Blue	7373 Cedar St, Santa Cruz, CA
Christopher Purple	7474 Fir St, Santa Cruz, CA
Amanda Yellow	7575 Hemlock St, Santa Cruz, CA
Matthew Orange	7676 Spruce St, Santa Cruz, CA
Stephanie Pink	7777 Cedar St, Santa Cruz, CA
Andrew Green	7878 Fir St, Santa Cruz, CA
Michelle Blue	7979 Hemlock St, Santa Cruz, CA
Christopher Purple	8080 Spruce St, Santa Cruz, CA
Amanda Yellow	8181 Cedar St, Santa Cruz, CA
Matthew Orange	8282 Fir St, Santa Cruz, CA
Stephanie Pink	8383 Hemlock St, Santa Cruz, CA
Andrew Green	8484 Spruce St, Santa Cruz, CA
Michelle Blue	8585 Cedar St, Santa Cruz, CA
Christopher Purple	8686 Fir St, Santa Cruz, CA
Amanda Yellow	8787 Hemlock St, Santa Cruz, CA
Matthew Orange	8888 Spruce St, Santa Cruz, CA
Stephanie Pink	8989 Cedar St, Santa Cruz, CA
Andrew Green	9090 Fir St, Santa Cruz, CA
Michelle Blue	9191 Hemlock St, Santa Cruz, CA
Christopher Purple	9292 Spruce St, Santa Cruz, CA
Amanda Yellow	9393 Cedar St, Santa Cruz, CA
Matthew Orange	9494 Fir St, Santa Cruz, CA
Stephanie Pink	9595 Hemlock St, Santa Cruz, CA
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At 21 DAS up to the time of sampling for dry weight measurements, only phosphate fertilizer had been applied to treated plots. The results indicate that there is a growth response by rice plants to 28 kg P_2O_5 per hectare (25 lb P_2O_5 /acre) applied just before sowing on Cashew Clay. The data also indicate that initially Cashew Clay may fix applied phosphate at a rate of at least 14kg P_2O_5 per hectare (12.5lb P_2O_5 /acre).

This data is presented graphically in Figure 1.

Plant samples were taken from each plot at 42 DAS for dry weight measurement and chemical analysis. The results of the dry weight measurements are presented in Figure 2. The results of the chemical analyses are not yet available. At 42 DAS up to the time of sampling, the levels of nitrogen, phosphate and potash which had been applied to treated plots are given in Table 4.

Table 4. Levels of nitrogen, phosphate and potash applied to treated plots of experiment R2/1/81 up to the time of sampling rice plants at 42 DAS.

Level	N		P_2O_5		K_2O	
	kg/ha	lb/ac	kg/ha	lb/ac	kg/ha	lb/ac
0	0	0	0	0	0	0
1	18.67	16.67	14.0	12.5	15.0	13.4
2	37.34	33.34	28.0	25.0	30.0	26.8

The data collected has provided information on the following characteristics which are related to crop establishment and growth:

- number of tillers per unit area
- mean tiller dry weight
- plant dry weight per unit area

Prior to carrying out the analyses of variance on the data collected for the above-mentioned characteristics, the data were tested to determine

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice. The second part outlines the procedures for handling discrepancies and errors, including the steps to be taken when a mistake is identified. The third part provides a detailed explanation of the accounting cycle, from identifying transactions to preparing financial statements. The fourth part discusses the role of internal controls in preventing fraud and ensuring the integrity of the financial data. The fifth part covers the requirements for external audits and the importance of transparency in financial reporting. The sixth part addresses the legal implications of financial misstatements and the consequences of non-compliance with accounting standards. The seventh part discusses the impact of technology on accounting practices and the need for continuous learning and adaptation. The eighth part provides a summary of the key points discussed in the document and offers recommendations for improving financial management practices. The ninth part includes a list of references and sources used in the preparation of the document. The tenth part concludes with a statement of the author's commitment to providing accurate and reliable information.

The following table provides a summary of the key findings and recommendations discussed in the document. It is intended to serve as a quick reference for readers and to highlight the most important aspects of the research.

Key Finding	Recommendation
Accurate record-keeping is essential for financial integrity.	Implement strict controls over receipt and invoice management.
Discrepancies should be identified and corrected promptly.	Establish a clear procedure for error reporting and resolution.
The accounting cycle is a systematic process that ensures consistency.	Follow the standard accounting cycle steps rigorously.
Internal controls are critical for fraud prevention.	Design and enforce robust internal control systems.
External audits provide an independent assessment of financial health.	Engage qualified auditors and maintain full transparency.
Legal consequences of misstatements can be severe.	Ensure compliance with all applicable accounting standards and laws.
Technology is transforming accounting practices.	Invest in training and infrastructure to leverage new technologies.
Continuous learning is necessary for staying current.	Encourage ongoing professional development for all staff.

The document concludes by reiterating the importance of a strong financial foundation for the success of any organization. It calls for a commitment to ethical practices, transparency, and continuous improvement. The author expresses confidence that the findings and recommendations provided will be helpful in enhancing the financial management of the organization. The document is intended to be a resource for all stakeholders involved in the financial operations of the organization. The author is available for further consultation and support. The document is subject to change without notice. The author reserves the right to update the document as new information becomes available. The document is intended for internal use only. The author is not responsible for any misuse of the information contained herein. The document is provided as a service to the organization and its stakeholders. The author is grateful for the opportunity to contribute to the organization's success. The document is a reflection of the author's expertise and experience in the field of accounting and finance. The author is committed to providing the highest quality of work and to maintaining the highest standards of integrity and professionalism. The document is a testament to the author's dedication to the organization and its mission. The author is proud to be a part of the organization and to contribute to its growth and success. The document is a valuable asset to the organization and its stakeholders. The author is confident that it will be well-received and that it will have a positive impact on the organization's financial management practices. The author is grateful for the support and feedback of all stakeholders. The document is a work in progress and is subject to change. The author is committed to ongoing improvement and to providing the best possible service to the organization and its stakeholders. The document is a reflection of the author's passion for the field of accounting and finance. The author is committed to staying current and to providing the most up-to-date information available. The document is a testament to the author's dedication to the organization and its mission. The author is proud to be a part of the organization and to contribute to its growth and success. The document is a valuable asset to the organization and its stakeholders. The author is confident that it will be well-received and that it will have a positive impact on the organization's financial management practices. The author is grateful for the support and feedback of all stakeholders. The document is a work in progress and is subject to change. The author is committed to ongoing improvement and to providing the best possible service to the organization and its stakeholders. The document is a reflection of the author's passion for the field of accounting and finance. The author is committed to staying current and to providing the most up-to-date information available.

whether the means of different groups of treatments were proportional to the variances. The tests indicated that for plant dry weight per unit area and for mean tiller dry weight there was no significant linear relationship in either case, whereas for the number of tillers per unit area a significant linear relationship (Fig.3) was observed between the mean and the variance. Consequently, the data for number of tillers per 900cm² was transformed using the log₁₀ transformation prior to carrying out the analysis of variance.

No significant treatment effects were found for mean tiller dry weight or for log₁₀ (number of tillers per 900cm² at 42 DAS).

For plant dry weight per 900cm² at 42DAS the effects of phosphate and the nitrogen x phosphate interaction were found to be significant at the 1% and 5% levels of probability respectively (Table 5). The values of the linear and quadratic components of the main and of the interaction effects for plant dry weight per 900cm² at 42 DAS are presented in Table 8 hereunder.

Table 8. Values of main and interaction effects for plant dry weight per 900 cm² at 42 days after sowing.

Effect	Value/900cm ²	Effect	Value/900cm ²
N'	0.22 ± 1.08	N''P''	-1.51 ± 0.44**
N''	1.87 ± 1.88	N'K'	1.66 ± 1.32
P'	2.35 ± 1.08*	N''K''	0.88 ± 0.77
P''	-4.93 ± 1.88*	N''K''	0.37 ± 0.77
K'	1.41 ± 1.08	N''K''	-0.12 ± 0.44
K''	2.47 ± 1.88	P'K'	2.18 ± 1.32
N'P'	-0.87 ± 1.32	P'K''	-0.68 ± 0.77
N'P''	0.05 ± 0.77	P''K'	0.50 ± 0.77
N''P'	0.73 ± 0.77	P''K''	0.21 ± 0.44

N', P', K' - linear effect of N,P, and K respectively
 N'', P'', K'' - quadratic effect of N,P, and K respectively
 ** - significant at 1% level of probability.
 * - significant at 5% level of probability..

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Item Description	Quantity	Unit Price	Total
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The table of means for plant dry weight per 900 cm² at 42 days after sowing is presented hereunder:

Table 9. Comparison of treatment means for plant dry weight per 900cm² at 42 DAS.

Treatment	Sample Mean	Statistical Gp.	Treatment	Sample Mean (g)	Statistical Gp.	Treatment	Sample Mean (g)	Statistical Gp.
n ₂ p ₁ k ₂	19.80	a	n ₂ p ₀ k ₀	14.40	abcd	n ₂ p ₂ k ₂	10.60	bcde
n ₂ p ₁ k ₁	17.30	ab	n ₀ p ₂ k ₂	14.35	abcd	n ₂ p ₂ k ₁	10.50	bcde
n ₀ p ₁ k ₀	16.85	abc	n ₁ p ₂ k ₁	13.80	abcde	n ₂ p ₀ k ₂	10.15	bcde
n ₂ p ₂ k ₂	16.35	abc	n ₀ p ₂ k ₁	13.20	abcde	n ₀ p ₀ k ₁	9.40	bcde
n ₀ p ₁ k ₁	16.05	abc	n ₀ p ₂ k ₀	11.70	bcde	n ₀ p ₀ k ₀	9.15	cde
n ₀ p ₁ k ₂	14.85	abcd	n ₂ p ₁ k ₀	11.00	bcde	n ₁ p ₁ k ₁	9.00	cde
n ₁ p ₀ k ₂	14.70	abcd	n ₁ p ₀ k ₀	10.95	bcde	n ₀ p ₀ k ₀	8.85	cde
n ₁ p ₁ k ₀	14.60	abcd	n ₁ p ₀ k ₁	10.75	bcde	n ₁ p ₁ k ₁	7.90	de
n ₁ p ₂ k ₂	14.55	abcd	n ₁ p ₂ k ₀	10.70	bcde	n ₂ p ₀ k ₁	6.25	e

Standard error of a treatment mean = ± 2.30

Statistical grouping based on shortest significant ranges using Duncan's Multiple Range Test.

Up to 42 days after sowing the best treatments which showed no significant differences between them in plant dry weight per unit area were found to range in cost of material (fertilizer) from J\$15.44 per hectare (J\$6.25 per acre) for 14kg P₂O₅ per hectare (12.51lbs P₂O₅ per acre, equivalent to 27 lbs Triplesuperphosphate per acre) to J\$94.76 per hectare (J\$38.35 per acre) for 37.34 kg N per hectare + 28 kg P₂O₅ per hectare + 30 kg K₂O per hectare (33.34 lbs N per acre + 25 lbs P₂O₅ per acre + 26.8 lbs K₂O per acre, equivalent to 159 lbs Sulphate of Ammonia per acre + 54 lbs Triplesuperphosphate per acre + 45 lbs Muriate of Potash per acre)

This data refers only to the growth of rice plants up to 42 days after sowing. Additional data on the growth responses and on the grain yield

The following information was obtained from the records of the
 Department of the Interior, Bureau of Land Management, on
 the subject of the above-captioned land.

Section	Range	County	State	Acres	Original Grantee	Date of Grant	Present Owner	Remarks
1	10N	10E	WY	360	John A. Smith	1880	John A. Smith	
2	10N	10E	WY	360	John A. Smith	1880	John A. Smith	
3	10N	10E	WY	360	John A. Smith	1880	John A. Smith	
4	10N	10E	WY	360	John A. Smith	1880	John A. Smith	
5	10N	10E	WY	360	John A. Smith	1880	John A. Smith	
6	10N	10E	WY	360	John A. Smith	1880	John A. Smith	
7	10N	10E	WY	360	John A. Smith	1880	John A. Smith	
8	10N	10E	WY	360	John A. Smith	1880	John A. Smith	
9	10N	10E	WY	360	John A. Smith	1880	John A. Smith	
10	10N	10E	WY	360	John A. Smith	1880	John A. Smith	

The above information was obtained from the records of the
 Department of the Interior, Bureau of Land Management, on
 the subject of the above-captioned land.

This document is a true and correct copy of the original
 as the same appears in the records of the Department of the
 Interior, Bureau of Land Management, on the subject of the
 above-captioned land.

The above information was obtained from the records of the
 Department of the Interior, Bureau of Land Management, on
 the subject of the above-captioned land.

responses will become available as the experiment progresses.

Thus far, the experimental data indicate that while 28 kg P_2O_5 per hectare applied prior to sowing results in a more rapid initial growth of rice plants as compared to 14 kg P_2O_5 per hectare, by 42 days after sowing no significant difference in plant dry weight per unit area could be found between those two levels of phosphate application. The data also indicate that up to 42 days after sowing only 14 kg per hectare of phosphate fertilization may be needed to promote satisfactory growth of rice plants on Cashew Clay soil. No nitrogen or potash fertilization appears to be needed up to 42 days after sowing for satisfactory growth of the rice plants on this soil type.

3.3 Experiment R3/1/81 and R4/1/81

Experiment R3/1/81 was sown on September 11, 1981. The crop did not establish properly and the experiment was re-sown on September 21, 1981. Again, establishment of the crop was poor.

Experiment R4/1/81 was sown on September 25, 1981. This crop also did not establish properly.

Regarding the difficulties experienced in establishing the crop in these two experiments, we were subsequently informed that these experiments were sited on a location where in the past it was found that the rice crop did not establish well and that surviving plants produced stunted growth. The site is located at the northernmost section of Field 5 and there are conflicting reports as to the identity of the soil type in that particular section.

Soil samples were taken from this location and sent to the SIRI Laboratory for analysis. The results of the analysis show that the soil in this location has a mean pH of 7.48 and a zinc content of 5.25 parts per million. At those levels of pH and zinc content it is probable that the rice plant will respond positively to zinc fertilization of the order of 3.36 kg zinc per hectare (3.01lbs Zinc per acre) applied as zinc sulphate or 0.84 kg Zinc per hectare (0.751b Zinc per acre) applied as a zinc chelate. This soil problem will be investigated as soon as land can be prepared in that location.

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice. This ensures that the financial statements are reliable and can be audited without any discrepancies.

Furthermore, it is crucial to review these records regularly to identify any potential errors or irregularities. This proactive approach helps in maintaining the integrity of the financial data and prevents any legal or tax-related issues from arising.

In addition, the document highlights the need for transparency in financial reporting. All stakeholders, including investors and creditors, should have access to clear and concise financial statements. This transparency builds trust and ensures that the organization is operating in a financially sound manner.

The second part of the document focuses on the implementation of internal controls. These controls are designed to prevent fraud, reduce the risk of errors, and ensure that the organization's resources are used efficiently. By establishing a strong internal control system, the organization can protect its assets and maintain its financial stability.

It is also important to ensure that all employees are trained on these internal controls and understand their role in maintaining the organization's financial health. Regular training and updates are necessary to keep the internal control system effective and relevant to the organization's current needs.

Finally, the document concludes by stating that a robust financial management system is essential for the long-term success of any organization. By following the guidelines outlined in this document, the organization can ensure that its financial operations are conducted with the highest level of accuracy and integrity.

These two experiments were abandoned because of poor establishment of the crop.

4. COUNTERPART PERSONNEL

Mr. Oscar Bowen, a graduate of the Elim Agricultural School, was assigned to the rice team on August 10, 1981.

Mr. Andrew Nam, a graduate of the Jamaica School of Agriculture, was assigned to the rice team on August 17, 1981.

Ergebnis:

Die Ergebnisse der Untersuchung zeigen, dass die Teilnehmer in der Gruppe A ein signifikant höheres Wissen über die Risiken des Klimawandels und die Notwendigkeit von Klimaschutzmaßnahmen erlangen konnten. Dies ist auf die intensive Aufklärung und die praktische Einbindung in die Projektarbeiten zurückzuführen. Die Teilnehmer in der Gruppe B zeigten hingegen ein geringeres Verständnis für diese Themen und waren weniger motiviert, sich für Klimaschutzmaßnahmen zu engagieren. Die Ergebnisse verdeutlichen die Bedeutung von interaktiven Lernangeboten für die Erreichung von Umweltbildungsziele.

Mean plant dry weight (g)/900 cm² at 21 DAS.

5.5
4.0
4.5
5.0
5.5

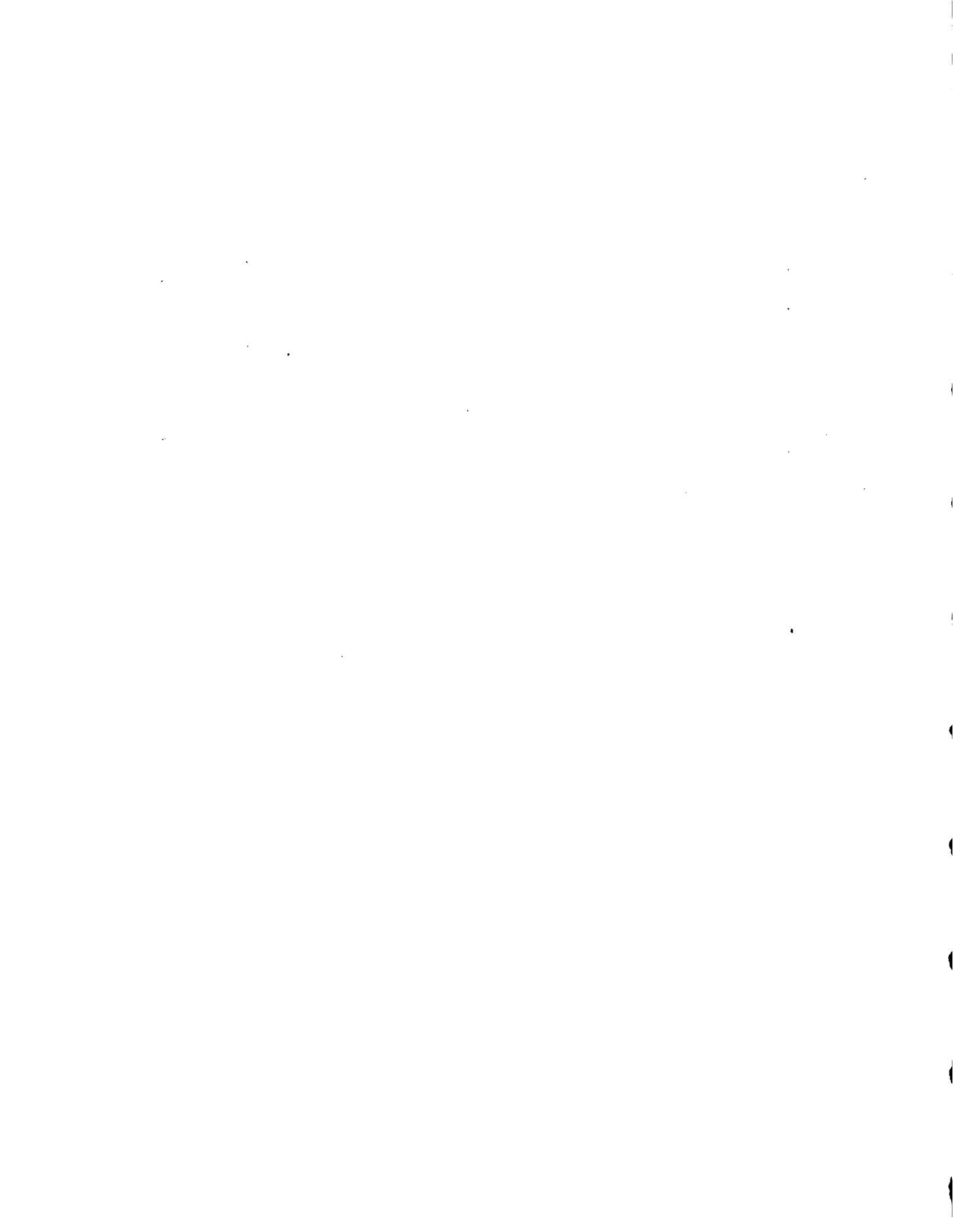
0 14 28
kg. P₂O₅ / ha

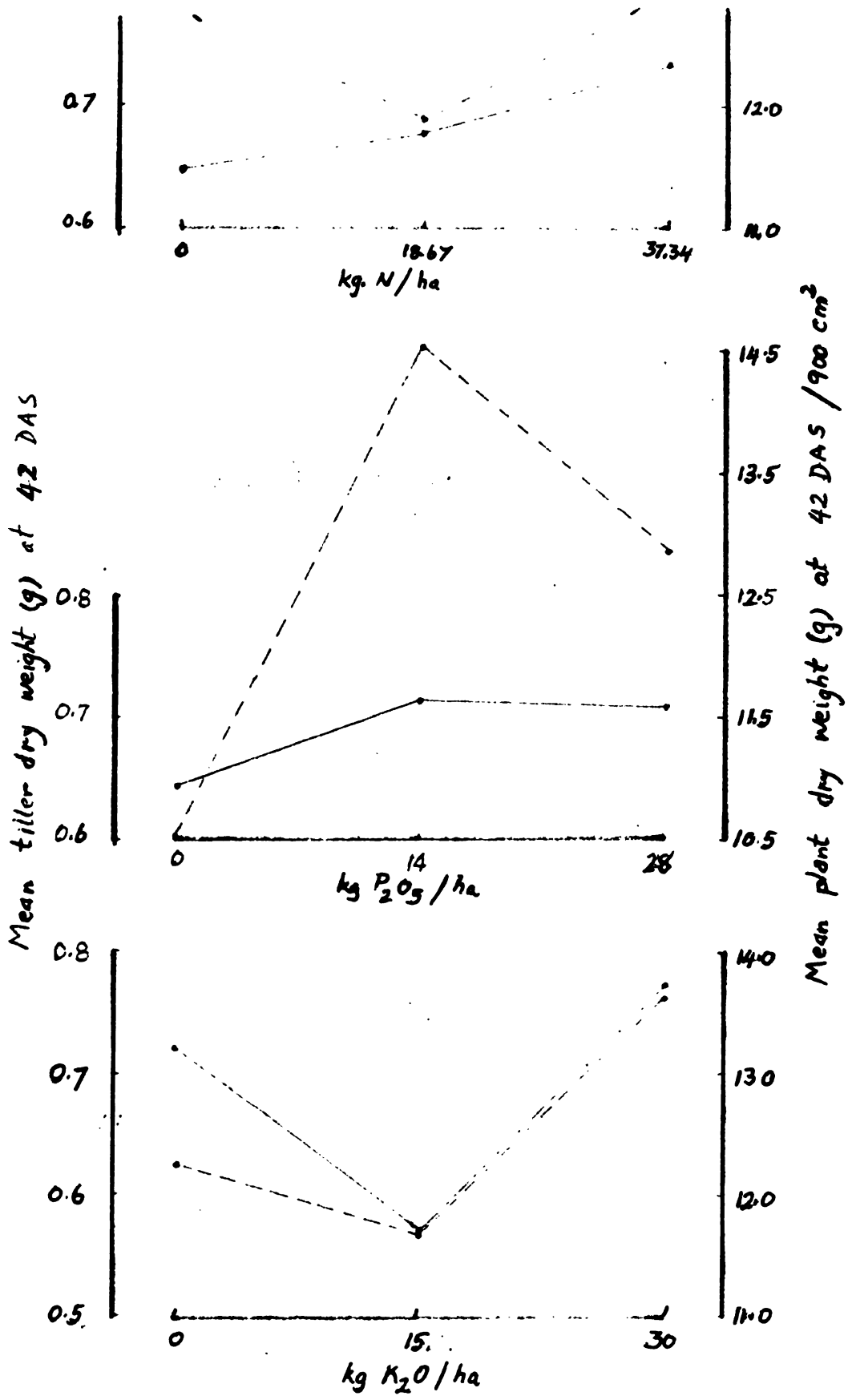
0.17
0.18
0.19
0.20
0.21
0.22
0.23
0.24
0.25

Mean tiller dry weight (g) at 21 DAS.

- Mean plant dry weight (g)/900 cm² at 21 DAS
- Mean tiller dry weight (g) at 21 DAS

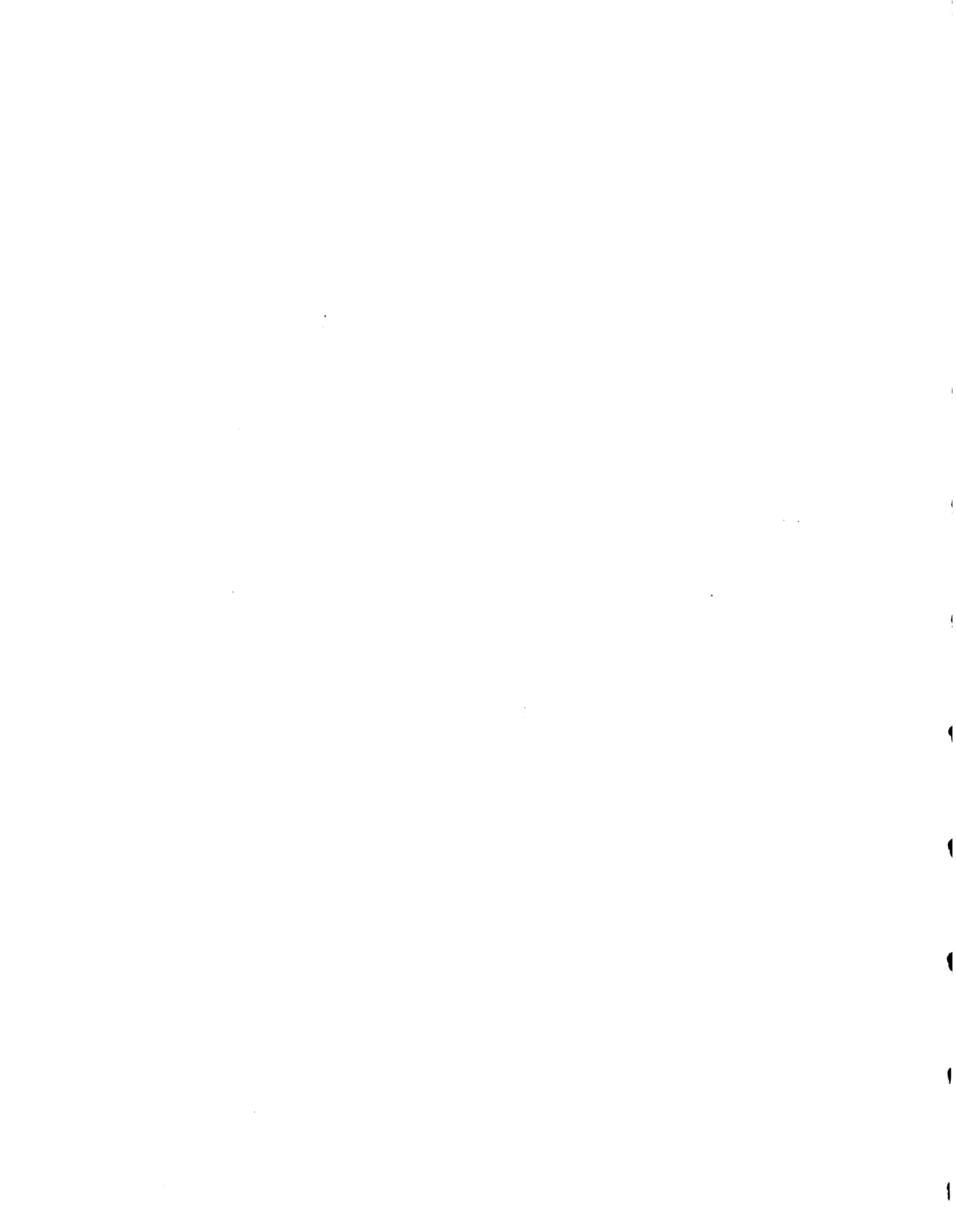
Figure 1. Mean plant dry weight (g) per 900 cm² and mean tiller dry weight (g), at 21 days after sowing, with three levels of phosphate.





- - - - - Mean plant dry weight (g) / 900 cm² at 42 DAS
 - - - - - Mean tiller dry weight (g) at 42 DAS

Figure 2. Mean plant dry weight (g) per 900 cm² and mean tiller dry weight (g) at 42 days after sowing, with three levels each of nitrogen, phosphate and potash.



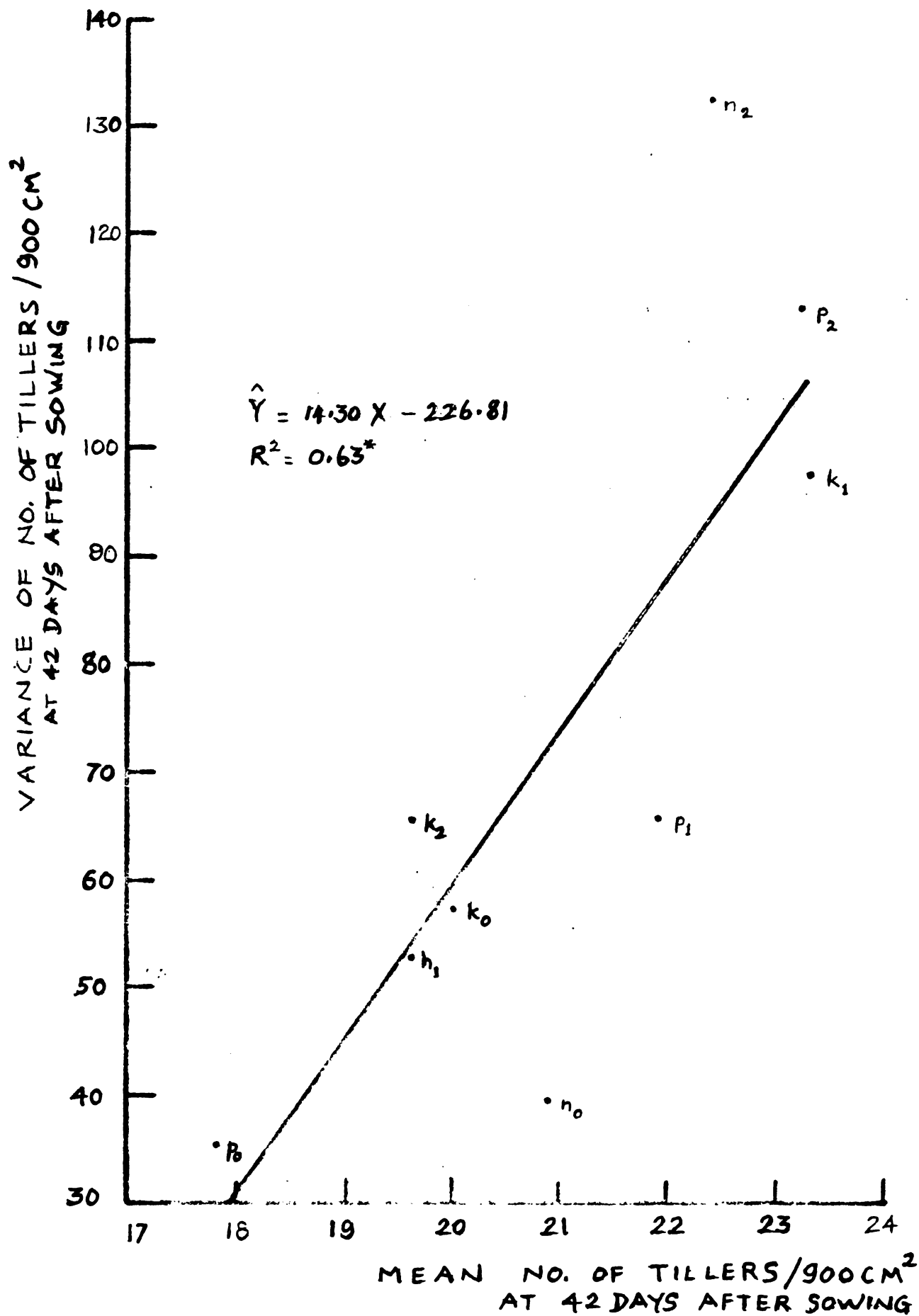
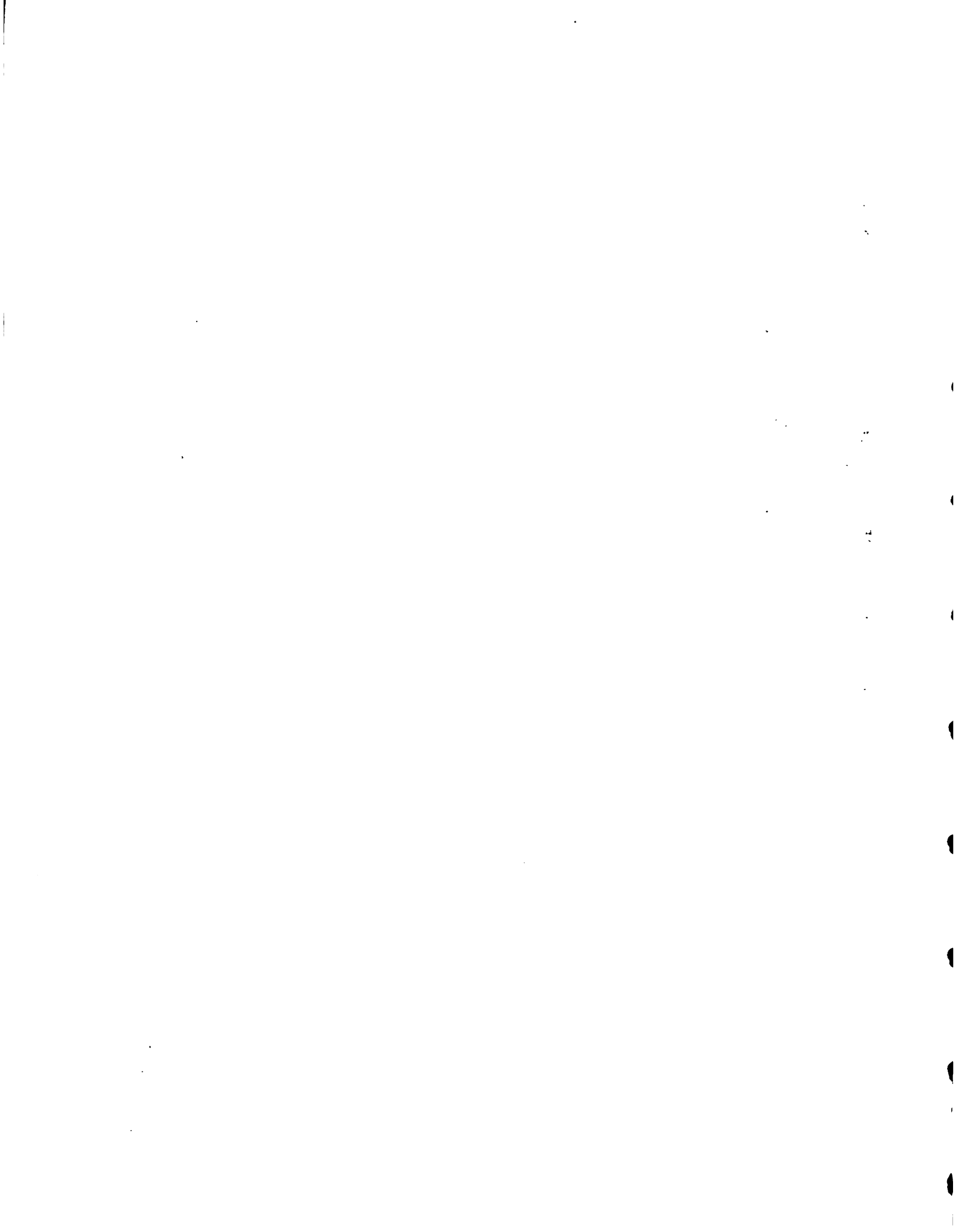


Figure 3. Relationship between mean and variance of number of tillers per 900 cm² at 42 DAS.



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- No. VI - 1 Vivian Chin, "Rice Research and Production in the BRUMDEC Project State-of-the-Art Review, Identification of Constraints and Interim Recommendations and Budget for Establishing 405 Hectares (1,000 acres) of Rice on the Clay Soils at BRUMDEC". January 1982.
- No. VI -2 Vivian Chin, "Programme of Work for the Short-Term Adaptive Production-Oriented Research on Rice in the BRUMDEC Project", January 1982
- No. VI - 3 Claude Grand-Pierre, "Adaptive Research for Grain Production (BRUMDEC) - A Short-Term Programme", January 1982
- No. VI - 4 Claude Grand-Pierre, "Experimental Procedures for Grain Crops Research in the BRUMDEC Project", January 1982
- No. VI - 5 Charles Kennard, "Summary of the Proposed Programme of Work for Adaptive Production Oriented Research (Short-Term) in Vegetable Production in the BRUMDEC Project", January 1982
- No. VI - 6 Charles Kennard, "Vegetable Production (BRUMDEC) - Review and Proposed Short-Term Adaptive Production Oriented Research Programme", January 1982.
- No. VI - 7 Dr. Bo-Myeong Woo, "Olive River Run-Off Plots - Description of the Experiment", January 1982
- No. VI - 8 Vivian Chin, "Fertilizer Experiments in BRUMDEC (Second Quarterly Report)" January 1982

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Fertilizer Experiments

Autor

on Rice in Brumdec.

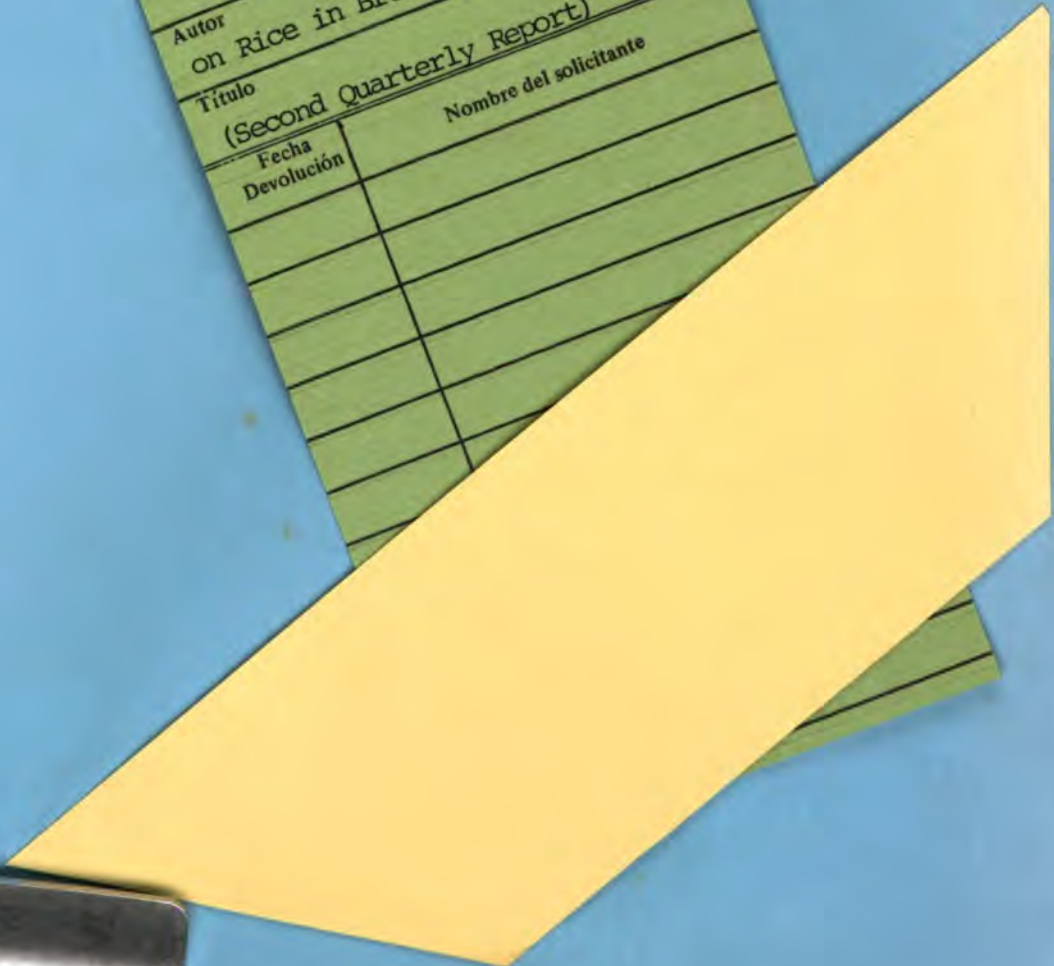
Título

(Second Quarterly Report)

Fecha
Devolución

Nombre del solicitante

Fecha Devolución	Nombre del solicitante



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