



ShikshanPrasarakSanstha's  
Padmabhushan Vasantraodada Patil Mahavidyalaya, KavatheMahankal,

## DEPARTMENT OF CHEMISTRY

### REPORT OF FIELD WORK (2023-24)

|                       |   |
|-----------------------|---|
| <b>Title</b>          | "Survey of farmers fertilizer practices and perceptions in KavatheMahankal Tehsil   |
| <b>Place</b>          | KavatheMahankal tehsil of Sangli district   |
| <b>Day &amp; Date</b> | 03/10/2023- 20/10/2023  |
| <b>Organizer</b>      | Department of Chemistry   |
| <b>Participants</b>   | 40 Departmental students & 04 Faculties   |
| <b>Organizer</b>      | Mr. A. S. Pawar   |
| <b>Background</b>     | Fertilizers are applied to replace the essential nutrients for plant growth to the soil after they have been depleted. By Arranging such survey farmers undergo self-introspection about use of fertilizers and their good and bad effects on crop yield. Students come to know chemistry involved in fertilizers. With this survey communication skill of students can be improved at the same time it will be useful for their curriculum enrichment. |
| <b>Objective</b>      | <ul style="list-style-type: none"><li>To provide the best route to acquire knowledge about fertilizers to farmers and students.</li><li>To helps farmers in planning their crop layout, irrigation systems, and land management practices effectively.</li><li>To guide the farmers for efficient use of fertilizers.</li><li>To boost the communication skills of students through on field visit.</li></ul>   |
| <b>Outcomes</b>       | <ul style="list-style-type: none"><li>Students understood the educational status of farmers is low therefore they are not aware about the importance of soil analysis, chemical composition, micronutrient for plants, meaning of N: P: K.</li><li>Farmers who are growing cash crop (Grapes) are alert they used to do soil analysis and have knowledge about micronutrients, chemical composition of fertilizers.</li></ul>                           |
| <b>Conclusion</b>     | The Department has scheduled a Fertilizers survey of farmers in KavatheMahankal tahsil from 03 Oct. 2023 to 20 Oct. 2023. The major goal of the survey was to improve the fertilizers management system of farmers and acquire knowledge of chemistry involved in fertilizers. <b>40 students</b> of department completed the survey by giving on field visit and collected <b>178</b> sampling.  |

  
(Mr. S. V. Patil)  
Head

Department Of Chemistry  
P. V. P. Mahavidyalaya,  
K.Mahankal, Dist-Sangli

  
Prof. (Dr.) M. K. Patil

PRINCIPAL,  
Padmabhushan Vasantraodada Patil  
Mahavidyalaya, K.Mahankal, Dist-Sangli



***ShikshanPrasarakSanstha's***  
**PadmabhushanVasatraodada**  
**Patil Mahavidyalaya,**  
**KavatheMahankal.**

**DEPARTMENT OF CHEMISTRY**

**FieldWork**

2023-24

## Application

From,  
Head,  
Department of Chemistry  
P. V. P. College, KavatheMahankal,  
Dist. Sangli, Maharashtra 416405  
Date: 16/09/2023

To,  
The Principal,  
PadmabhushanVasatraodada Patil Mahavidyalaya,  
KavatheMahankal, Dist. Sangli,  
Maharashtra 416405

**Subject:** Seeking a permission to start the Field Work "Survey of farmers fertilizer practices and perceptions in KavatheMahankal tehsil of Sangli district".

Respected sir,

As per your guidelines we are going to start Field Work on Survey of farmers fertilizer practices and perceptions in KavatheMahankal tehsil of Sangli district at Department of Chemistry for our Departmental Students. The course will be definitely very beneficiary for students.

I request you to give permission to start the abovefield work in the Department.

Thanking you.

Yours faithfully,

  
Head

Department Of Chemistry  
P. V. P. Mahavidyalaya,  
K. Mahankal, Dist- Sangli



**PADMABHUSHAN VASANTRAODADA PATIL MAHAVIDYALAYA**

**KAVATHE MAHANKAL, Dist. Sangli (Maharashtra) Pin- 416 405**

**Principal Prof. (Dr.) M.K.Patil M.Sc., M.Phil., Ph.D.**

**Mob. 9421185277**

**Phone- 02341-295220 Email : kmpvp@rediffmail.com**

**Jr. College Index No. J 22.04.002**

**Website : www.pvpkm.org**

Ref No. PVPKM/ 2023-24

Date : 18 Sept. 2023

To  
Head,  
Department of Chemistry,  
P. V. P. College, Kavathe Mahankal.

Sub : Regarding the permission for field work

Ref : Your application dated on 16/09/2023

Respected Sir,

With reference to your letter regarding organizing the field work "Survey of farmers fertilizer practices and perceptions in Kavathe Mahankal tehsil of Sangli district".

I agree and granting permission for field work

Regards



*M.K. Patil*

**PRINCIPAL,**

**Padmabhushan Vasanttraodada Patil  
Mahavidyalaya, K. Mahankal, Dist-Sangli**

**Padmabhushan Vasantodada Patil Mahavidyalaya, KavatheMahankal.**

**DEPARTMENT OF CHEMISTRY**

Date: 01-10-2023

**NOTICE**

All the students in Chemistry department are informed that, Department of Chemistry is going to start the field Survey of farmers fertilizer practices and perceptions in KavatheMahankal tehsil of Sangli district at Department of Chemistry. The interested students are requested to enroll up to 07<sup>th</sup> September, 2023.



**Head**

**Department Of Chemistry  
P. V. P. Mahavidyalaya,  
K.Mahankal.Dist-Sangli**

*ShikshanPrasarakSanstha's*

PadmabhushanVasatraodada Patil  
Mahavidyalaya, KavatheMahankal.

*DEPARTMENT OF CHEMISTRY*

Field Work

2023-24

**Survey of Farmers Fertilizer Practices and  
Perceptions in KavatheMahankalTehsil,  
DistSangli**

Duration

03 October -20 October 2023

India is a nation where more than 70 per cent of the population relies on agriculture for a living. It is the world's largest producer of spices, pulses, milk, tea, cashew, and jute and ranks second in the production of wheat, rice, fruits and vegetables, sugarcane, cotton, and oilseeds. Agriculture is the backbone of the Indian economy. About 60–70 per cent of the population in India works in agriculture, which contributes 20 per cent to the country's GDP. Fertilizers are generally defined as "Any substance, whether natural or synthetic, organic or inorganic, that provides one or more of the chemical components needed for plant growth". The three essential plant nutrients nitrogen, phosphorus, and potassium are present in the majority of fertilizers that are frequently applied to agricultural fields. Some fertilizers also contain certain "micronutrients," such as zinc, sulphur and other metals necessary for plant growth. Fertilizers are important agricultural inputs that are necessary for growing crops that feed people worldwide. Irrigation and fertilization significantly affect crop yield and are vital to grain production and food security. In addition to water supply, a reliable nitrogen supply is another essential factor that has allowed farmers to significantly increase crop yields over the past decades. Thus, it is essential to improve on-farm fertilizers practices and techniques. Pressurized fertigation methods, such as drip fertigation and sprinkler fertigation, are highly recommended for enhancing resource use efficiency and mitigating the pollution of surface water and groundwater. Fertigation is an agronomic technique by which water and fertilizer are supplied simultaneously. It is intended to be a way for growing crops using less fertilizer, better water and nutrient use efficiency, and labor savings. The use of fertigation can lower production costs while bringing opportunities for improved crop yields. Many efforts have been made to promote pressurized irrigation in the fields.

### Objectives

- To study factors affecting farmers socio- economic development of farmers.
- To study awareness & knowledge of farmers about use of fertilizers.
- To study farmer satisfaction toward fertilizers.
- To literate the farmers about **chemical composition**, and basic parameters of fertilizers

## Field Work Report

Present study is based on primary data which is collected by departmental by intensive field work. About 200 farmers from tehsil were selected by random sampling method and interviews of farmers are analyzed and concluded. The questionnaire technique also used for collection of data from farmers. Microsoft excel software is used for data tabulation and calculation and create the chart for graphical presentation of data

### INFORMATION COLLECTED FROM FIELD VISIT

We concentrated on study of awareness of farmers which involves awareness about soil analysis, meaning of N: P:K on the label of sack, information about micronutrient for plants, knowledge of fertilizer manufacturing companies. The farmers are important part of society and their socio-economic life affected by their practices. So, there is need to understand the awareness about use of fertilizers.

**Awareness about soil analysis:** Soil testing is the base for management decisions about fertilizer requirements. It involves the estimation and evaluation of the available nutrient status and acidic reaction of a sample of soil. After testing, a fertility map is prepared where the available nitrogen, phosphorous and potassium is calculated. Areas of sufficient and insufficient nutrients are marked out and nutritional requirements are determined. Fertilizers such as NPK, lime or gypsum are recommended to improve soil fertility. Fertilizer addition, which is based on soil testing, usually leads to an increase in yields and profits by providing the correct amounts of needed nutrients. It also leads to uniform application of nutrients in a field. As nutrient availability becomes less variable, the crop growth is more uniform. Regular soil testing also contributes to environmental sustainability as the use of excess fertilizers can be avoided. Due high charges of soil testing labs most of the farmers skip the process of soil analysis. In present study we have found only 2% of farmers prefers soil analysis who were growing cash crops.

**Information about meaning of N: P: K: of fertilizer:** The letters "NPK" on a fertilizer label stand for nitrogen, phosphorus, and potassium, the three primary nutrients plants need to grow. The numbers on the label indicate the ratio (by percentage) of nitrogen, phosphorus,

and potassium in the fertilizer container. In present study 35% of farmers are able to give at least some correct information about these parameters.

**Information about micronutrient for plants:** Micronutrients are important for plant growth, as plants require a proper balance of all the essential nutrients for normal growth and optimum yield. They are boron (B), chloride (Cl), copper (Cu), iron (Fe), manganese (Mn), molybdenum (Mo), nickel (Ni) and zinc (Zn). In present study 13% of farmers are able to give information about micronutrients.

**Knowledge of chemical Composition of fertilizer:** Chemical composition of fertilizer gives information about elemental content in fertilizers as well as fillers associated with it. By knowing the chemical composition farmers can use fertilizers more efficiently. In present study we found that only 2% of farmers are aware about chemical composition of fertilizers. All these farmers are growing cash crop (grapes).

**Knowledge of fertilizer manufacturing companies:** The fertilizer industry in India is extremely vital as it manufactures some of the most important raw materials required for crop production. The primary objective of these industries is to ensure the inflow of both primary and secondary elements required for crop production in the desirable quantities. The quality and cost are assured by knowledge of fertilizer manufacturing companies. In present study 76% of farmers are able to give name of at least 2 names of Indian companies.

**Satisfaction of results obtained by fertilizers:** As yield of crop is depends on many factors therefore 54% farmers have neutral opinion on results, 24% farmers are not satisfied, while 22% of farmers are satisfied with the results.

**Satisfaction with cost of fertilizers used:** Looking at natural calamities, inflation and annual income of farmers, and increasing, it is very difficult to farmers to afford fertilizers. 95% of farmers are not satisfied with the cost of fertilizers

**Experts advice:** Advice given by someone who has studied a subject thoroughly or who is very skilled at a particular job is essential condition in any business. For use of fertilizer farmers must take experts advice. In present study 88% of farmers did not used to take experts advice, as it is expensive.

## Outcomes of Field Work

Assessment of farmers fertilizer practices and perceptions focused by the students and concluded that:

- The educational status of farmers is low therefore they are not aware about the importance of soil analysis, chemical composition, micronutrient for plants, meaning of N: P: K.
- Farmers who are growing cash crop (Grapes) are alert they used to do soil analysis and have knowledge about micronutrients, chemical composition of fertilizers.
- The annual income of farmers is low, that they cannot afford soil analysis, experts' advice.

**Suggestions:** The social as well as economic condition of farmers is progressive but there is need to convert the view of farmers from traditional to professional. Here some suggestions are given from our view.

- There is need to organized farming to reduce the problems of farmers.
- Financial support is important for farmers because income of farmer is totally depending on climate which is uncontrollable.
- There is need to create storage as well as cooling facility for goods in each village place which will improve economic status of farmers.
- It is necessary to have awareness programs on fertilizer practice by NGOs, or government agencies.

## ShikshanPrasarakSanstha's

PadmabhushanVasatraodada Patil Mahavidyalaya, KavatheMahankal,

## DEPARTMENT OF CHEMISTRY

## Fertilizer Survey

| Sr.no | NAME OF STUDENT              | Questionnaires Submitted | Signature      |
|-------|------------------------------|--------------------------|----------------|
| 1     | *SHINGADE VIDYA APPASO       | 5                        | Vidya          |
| 2     | *SURYAWANSHI PRATIKSHA       | 5                        | Pratiksha      |
| 3     | PATIL SOURABH SURESH         | 5                        | Sourabh        |
| 4     | * DALAVI AISHWARYA GAJANAN   | 5                        | Aishwarya      |
| 5     | * PHAKADE PRAVINA BABAN      | 5                        | Phakade        |
| 6     | * PATIL PRACHI BHARAT        | 5                        | Prachi         |
| 7     | PAWAR GANESH APPASO          | 5                        | Ganesh         |
| 8     | PATIL VISHAL LAGONDA         | 5                        | Vishal         |
| 9     | MULANI SUBBAN APPALAL        | 5                        | Subban         |
| 10    | * SHELAKHE YOGITA ASHOK      | 5                        | Y.A.Shelake    |
| 11    | *SAVALE SAKSHI ARUN          | 5                        | Sakshi         |
| 12    | * JANKAR SWAPNALI VILAS      | 5                        | Swapnali       |
| 13    | RASALE OMNKAR KUNDLIK        | 5                        | Rasale         |
| 14    | BHOSALE GULAB AJAY           | 5                        | Bhosale        |
| 15    | * PATIL PRANALI RAJENDRA     | 5                        | P.R.Patil      |
| 16    | JADHAV SANKET HANMANT        | 5                        | Sanket         |
| 17    | * KAULAPURE POOJA PRAKASH    | 4                        | Pooja          |
| 18    | CHAVAN SANKET RANGRAO        | 4                        | Sanket         |
| 19    | WAGHMODE VIKRAM SIDDHARTH    | 4                        | Vikram         |
| 20    | PAREKAR SHUBHAM SAMBHAJI     | 4                        | Shubham        |
| 21    | KHANDARE VISHVAJIT NANASO    | 4                        | Vishvajit      |
| 22    | BHOSALE VINAYAK PRAVIN       | 4                        | Vinayak        |
| 23    | MENGUDALE MAHESHWER          | 4                        | Mengudale      |
| 24    | * CHAVAN BHARTI SHASHIKANT   | 5                        | Bharti         |
| 25    | PATIL JAYDEEP UDDHAV         | 4                        | Jaydeep        |
| 26    | PATIL VIPUL VILAS            | 4                        | Vipul          |
| 27    | * DESHINGE ADITI MARUTI      | 4                        | Adeshinge      |
| 28    | * CHAVAN PRAJAKTA GULABRAO   | 4                        | Prajakta       |
| 29    | * ATHAVALE PRAMODINI SAVANT  | 5                        | P. S. Athavale |
| 30    | * CHAVAN VAISHNAVI LAXMAN    | 4                        | Vaishnavi      |
| 31    | * BHOSALE RUTUJA ANANDA      | 4                        | R.Bhosale      |
| 32    | * AWATI DHANESHWARI DHANAPPA | 4                        | D.Awati        |
| 33    | * KEDAR PRATIKSHA SUBHASH    | 4                        | P.s.kedar      |
| 34    | * SALUNKHE SANIKA RAJARAM    | 4                        | Salunkhe       |
| 35    | MANE RUSHIKESH ASHOK         | 4                        | R.Mane         |
| 36    | PATIL SURAJ RAJENDRA         | 4                        | SRPatil        |
| 37    | PATIL OMNKAR RAMCHANDRA      | 4                        | OPatil         |
| 38    | * MALI TRIUPTI MUKUND        | 4                        | Triupti        |
| 39    | SAKATE SHASHIKANT SHUBHASH   | 4                        | Sakate         |
| 40    | DESAI PRANAV PANDURANG       | 4                        | Pranav         |

Padmabhushan Vasantrodada Patil Mahavidyalaya, Kavathe Mahankal.

DEPARTMENT OF CHEMISTRY

Fertilizer Survey

Name of Student: \_\_\_\_\_

Name of farmer: \_\_\_\_\_

Address : \_\_\_\_\_

1. Total land in acres: \_\_\_\_\_
2. Have you done the soil and water analysis recently of your soil and irrigation water YES  / NO
3. What type of soil is in your farm Black Soil  / Laterite Soil  / Alluvial Soil
4. Name the crops grown in your farm during a year. \_\_\_\_\_
5. Name the type of irrigation that used for irrigation 1 Surface Irrigation  / 2 Sprinkler Irrigation  / 3 Subsurface Irrigation  / 4 Drip Irrigation
6. What is source of water for farming Rain water  / Well water  / Canal water  / Bore Water
7. Details of Chemical fertilizers used during complete year

| Sr. No. | Name of fertilizer (Urea, sulphala etc) | Quantity in KG | Nitrogen content in % | Phosphorus content in % | Potash content % | Brand /Company (RCF, Jay kissan etc) | Other micronutrients %(boron, chlorine, copper, iron, manganese, molybdenum and zinc) |
|---------|---|----------------|-----------------------|-------------------------|------------------|--------------------------------------|---|
|         |   |                |                       |                         |                  |                                      |   |
|         |   |                |                       |                         |                  |                                      |   |
|         |   |                |                       |                         |                  |                                      |   |
|         |   |                |                       |                         |                  |                                      |   |
|         |   |                |                       |                         |                  |                                      |   |
|         |   |                |                       |                         |                  |                                      |   |
|         |   |                |                       |                         |                  |                                      |   |
| Total   |   |                |                       |                         |                  |                                      |   |

8. Do you check the quality of purchased fertilizers in certified laboratory YES  / NO

9. Are these fertilizers according to the formulations YES  / NO

10. Are you Satisfied with results obtained by use of fertilizers YES  / NO

DEPARTMENT OF CHEMISTRY

Fertilizer Survey

Name of Student: Maheshwar Jalindar Mengudale.

Name of farmer: Jalindar Mahaling Mengudale.

Address: A/P.- Langarpeth. Tal- Kavathe Mahankal.

- Total land in acres: one
- Have you done the soil and water analysis recently of your soil and irrigation water YES  / NO
- What type of soil is in your farm Black Soil  / Laterite Soil  / Alluvial Soil
- Name the crops grown in your farm during a year. Maize.
- Name the type of irrigation that used for irrigation 1 Surface Irrigation  / 2 Sprinkler Irrigation  / 3 Subsurface Irrigation  / 4 Drip Irrigation
- What is source of water for farming Rain water  / Well water  / Canal water  / Bore Water
- Details of Chemical fertilizers used during complete year

| Sr. No. | Name of fertilizer (Urea, suphalaetc) | Quantity in KG | Nitrogen content in % | Phosphorus content in % | Potash content % | Brand /Company (RCF, Jay kissanetc) | Other micronutrients%(boron, chlorine, copper, iron, manganese, molybdenum and zinc) |
|---------|---------------------------------------|----------------|-----------------------|-------------------------|------------------|-------------------------------------|--|
| 1]      | Urea                                  | 50             | 42-46                 |                         |                  |                                     |  |
| 2]      | Sujala 19:19:19                       | 1              | 19                    | 19                      | 19               | Sujala                              |  |
| 3]      | D.A.P.                                | 50             | 18                    | 46.                     |                  |                                     |  |
| 4]      | Mahadhan<br>12:61:0                   | 1              |                       |                         |                  | Mahadhan                            |  |
| 5]      | Corrosion                             | 50ml           |                       |                         |                  |                                     |  |
| Total   |                                       |                |                       |                         |                  |                                     |  |

- Do you check the quality of purchased fertilizers in certified laboratory YES  / NO
- Are these fertilizers according to the formulations YES  / NO
- Are you Satisfied with results obtained by use of fertilizers YES  / NO

Padmabhushan Vasantodada Patil Mahavidyalaya, Kavathe Mahankal.

DEPARTMENT OF CHEMISTRY

Fertilizer Survey

Name of Student: Yogita Ashok Shelake

Name of farmer: Eknath Yohvant Shelake

Address: A/P - Agalgaon Tel - Kavathe Mahankal Dist - Sangli

- Total land in acres: 0.5
- Have you done the soil and water analysis recently of your soil and irrigation water YES  / NO
- What type of soil is in your farm Black Soil  / Laterite Soil  / Alluvial Soil
- Name the crops grown in your farm during a year. Grapes
- Name the type of irrigation that used for irrigation 1 Surface Irrigation  / 2 Sprinkler Irrigation  / 3 Subsurface Irrigation  / 4 Drip Irrigation
- What is source of water for farming Rain water  / Well water  / Canal water  / Bore Water
- Details of Chemical fertilizers used during complete year

| Sr. No. | Name of fertilizer (Urea, suphalaetc) | Quantity in KG | Nitrogen content in % | Phosphorus content in % | Potash content % | Brand / Company (RCF, Jay kisanetc) | Other micronutrients%(boron, chlorine, copper, iron, manganese, molybdenum and zinc) |
|---------|---------------------------------------|----------------|-----------------------|-------------------------|------------------|-------------------------------------|--|
| 1)      | Urea                                  | 5              |                       |                         |                  | Jay Kisan                           |  |
| 2)      | 12:61:00                              | 2.5            |                       |                         |                  | ICL                                 |  |
| 3)      | 19:19:19                              | 2.5            |                       |                         |                  | ICL                                 |  |
| 4)      | 00:52:34                              | 2.5            |                       |                         |                  | ICL                                 |  |
| 5)      | 00:00:50                              | 2.5            |                       |                         |                  |                                     |  |
| Total   |                                       |                |                       |                         |                  |                                     |  |

- Do you check the quality of purchased fertilizers in certified laboratory YES  / NO
- Are these fertilizers according to the formulations YES  / NO
- Are you Satisfied with results obtained by use of fertilizers YES  / NO

Padmabhushan Vasantodada Patil Mahavidyalaya, Kavathe Mahankal.

DEPARTMENT OF CHEMISTRY

Fertilizer Survey

Name of Student: Pratiksha Ajayraj Suryawanshi

Name of farmer: Pratik Jayant Kore

Address: Ahp - kokale Tal-t. mahankal Dist. sangli

- Total land in acres: 3 acres
- Have you done the soil and water analysis recently of your soil and irrigation water YES  / NO
- What type of soil is in your farm Black Soil  / Laterite Soil  / Alluvial Soil
- Name the crops grown in your farm during a year. Grapes.
- Name the type of irrigation that used for irrigation 1 Surface Irrigation  / 2 Sprinkler Irrigation  / 3 Subsurface Irrigation  / 4 Drip Irrigation
- What is source of water for farming Rain water  / Well water  / Canal water  / Bore Water
- Details of Chemical fertilizers used during complete year

| Sr. No. | Name of fertilizer (Urea, suphalaetc) | Quantity in KG | Nitrogen content in % | Phosphorus content in % | Potash content % | Brand /Company (RCF, Jay kissanetc) | Other micronutrients%(boron, chlorine, copper, iron, manganese, molybdenum and zinc) |
|---------|---------------------------------------|----------------|-----------------------|-------------------------|------------------|-------------------------------------|--|
| ①       | suphala<br>15:15:15                   | 45kg           | 15%                   | 15%                     | 15%              | Jay<br>kissan                       |  |
| ②       | 10:10:10                              | 45kg           | 10%                   | 10%                     | 10%              | AG                                  |  |
| ③       | 19:19:19                              | 25kg           | 19%                   | 19%                     | 19%              | Jay<br>kissan                       |  |
| ④       | MgSO <sub>4</sub>                     | 25kg           |                       |                         |                  | vanita                              | Mg = 9.5%<br>S = 12%<br>Zn = 21%   |
| ⑤       | zinc<br>sulphate                      | 10kg           |                       |                         |                  | Pratik                              |  |
| Total   |                                       |                |                       |                         |                  |                                     |  |

8. Do you check the quality of purchased fertilizers in certified laboratory YES  / NO

9. Are these fertilizers according to the formulations YES  / NO

10. Are you Satisfied with results obtained by use of fertilizers YES  / NO

Padmabhushan Vasantodada Patil Mahavidyalaya, KavatheMahankal.

DEPARTMENT OF CHEMISTRY

Fertilizer Survey

Name of Student: Pravina Baban Phakade

Name of farmer: Baban Dhondiram phakade

Address: AIP - Kuchi

- Total land in acres: 1 Acre
- Have you done the soil and water analysis recently of your soil and irrigation water YES  / NO
- What type of soil is in your farm Black Soil  / Laterite Soil  / Alluvial Soil
- Name the crops grown in your farm during a year. grapes
- Name the type of irrigation that used for irrigation 1 Surface Irrigation  / 2 Sprinkler Irrigation  / 3 Subsurface Irrigation  / 4 Drip Irrigation
- What is source of water for farming Rain water  / Well water  / Canal water  / Bore Water
- Details of Chemical fertilizers used during complete year

| Sr. No. | Name of fertilizer (Urea, suphalaetc) | Quantity in KG | Nitrogen content in % | Phosphorus content in % | Potash content % | Brand /Company (RCF, Jay kissanetc) | Other micronutrients%(boron, chlorine, copper, iron, manganese, molybdenum and zinc) |
|---------|---------------------------------------|----------------|-----------------------|-------------------------|------------------|-------------------------------------|--|
| 1)      | 19:19:19                              | 50kg           | 19%                   | 19%                     | 19%              | Jay kissan                          |  |
| 2)      | 13:00:45                              | 45kg           | 13%                   | -                       | 45%              | "                                   |  |
| 3)      | 0:0:52:34                             | 50kg           | -                     | 52%                     | 34%              | "                                   |  |
| 4)      | Calcium Nitrate                       | 45kg           | 15%                   | -                       | -                |                                     |  |
| 5)      | sulphate of potash                    | 50kg           | -                     | -                       | 50%              |                                     |  |
| Total   |                                       |                |                       |                         |                  |                                     |  |

- Do you check the quality of purchased fertilizers in certified laboratory YES  / NO
- Are these fertilizers according to the formulations YES  / NO
- Are you Satisfied with results obtained by use of fertilizers YES  / NO

DEPARTMENT OF CHEMISTRY

Fertilizer Survey

Name of Student: Swapnali Vilas Jankar

Name of farmer: Balasahab Appa Jankar

Address: At./P. Basappachiwadi, Tal. K. Mahankal

- Total land in acres: 2
- Have you done the soil and water analysis recently of your soil and irrigation water YES  / NO
- What type of soil is in your farm Black Soil  / Laterite Soil  / Alluvial Soil
- Name the crops grown in your farm during a year. Grapes
- Name the type of irrigation that used for irrigation 1 Surface Irrigation  / 2 Sprinkler Irrigation  / 3 Subsurface Irrigation  / 4 Drip Irrigation
- What is source of water for farming: Rain water  / Well water  / Canal water  / Bore Water
- Details of Chemical fertilizers used during complete year

| Sr. No. | Name of fertilizer (Urea, sulphate etc) | Quantity in KG | Nitrogen content in % | Phosphorus content in % | Potash content % | Brand / Company (RCF, Jay kissan etc) | Other micronutrients% (boron, chlorine, copper, iron, manganese, molybdenum and zinc) |
|---------|---|----------------|-----------------------|-------------------------|------------------|---------------------------------------|---|
| 1       | Zink Sulphate                           | 10kg           | -                     | -                       | -                | Pratik                                | Zn = 21%  |
| 2       | MgSO <sub>4</sub>                       | 25kg           | -                     | -                       | -                | Vanita                                | Mg = 9.5%<br>S = 12.9%  |
| 3       | 191919                                  | 1kg            | 19%                   | 19%                     | 19%              | Jay Kissan                            | -   |
| 4       | 101010                                  | 2.5kg          | 10%                   | 10%                     | 10%              | AG                                    | -   |
| 5       | Sulphate                                | 45kg           | 15%                   | 15%                     | 15%              | Jay Kissan                            | -   |
| Total   |   |                |                       |                         |                  |                                       |   |

- Do you check the quality of purchased fertilizers in certified laboratory YES  / NO
- Are these fertilizers according to the formulations YES  / NO
- Are you Satisfied with results obtained by use of fertilizers YES  / NO

**Padmabhushan Vasantodada Patil Mahavidyalaya, Kavathe Mahankal.**

**DEPARTMENT OF CHEMISTRY**

Fertilizer Survey

Name of Student: Vidya Appaso Shingade.

Name of farmer: Ramchandra Pandurang Mali.

Address: A/P- Deshing Tal-K. Mahankal Dist- Sangli

- Total land in acres: 12 acres
- Have you done the soil and water analysis recently of your soil and irrigation water YES  / NO
- What type of soil is in your farm Black Soil  / Laterite Soil  / Alluvial Soil
- Name the crops grown in your farm during a year. Grapes.
- Name the type of irrigation that used for irrigation 1 Surface Irrigation  / 2 Sprinkler Irrigation  / 3 Subsurface Irrigation  / 4 Drip Irrigation
- What is source of water for farming Rain water  / Well water  / Canal water  / Bore Water
- Details of Chemical fertilizers used during complete year

| Sr. No. | Name of fertilizer (Urea, suphalaetc) | Quantity in KG | Nitrogen content in % | Phosphorus content in % | Potash content % | Brand /Company (RCF, Jay kissanetc) | Other micronutrients%(boron, chlorine, copper, iron, manganese, molybdenum and zinc) |
|---------|---------------------------------------|----------------|-----------------------|-------------------------|------------------|-------------------------------------|--|
| 1.      | 19 : 19 : 19                          | 1 KG           | 19%                   | 19%                     | 19%              | Jay Kissan                          | -  |
| 2.      | 10 : 10 : 10                          | 2.5 KG         | 10%                   | 10%                     | 10%              | AG                                  | -  |
| 3.      | Suphala                               | 45 KG          | 15%                   | 15%                     | 15%              | Jay Kissan                          | -  |
| 4.      | MgSO <sub>4</sub>                     | 25 KG          | -                     | -                       | -                | Vanita                              | Mg = 9.5%<br>S = 12%   |
| 5.      | Zinc Sulphate                         | 10 KG          | -                     | -                       | -                | Pratik                              | Zn = 21%   |
|         |                                       |                |                       |                         |                  |                                     |  |
| Total   |                                       |                |                       |                         |                  |                                     |  |

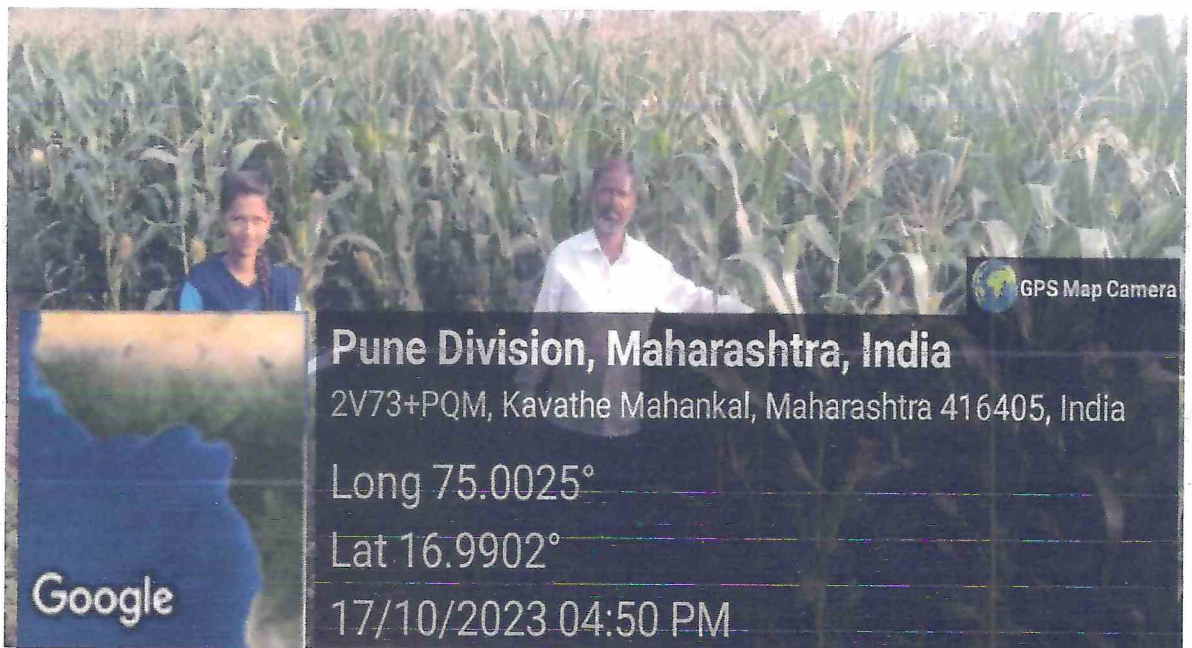
- Do you check the quality of purchased fertilizers in certified laboratory YES  / NO
- Are these fertilizers according to the formulations YES  / NO
- Are you Satisfied with results obtained by use of fertilizers YES  / NO

ShikshanPrasarakSanstha's

PadmabhushanVasatraodada Patil Mahavidyalaya, *KavatheMahankal*,

DEPARTMENT OF CHEMISTRY

Fertilizer Survey Photos





GPS Map Camera



**Pune Division, Maharashtra, India**

2V73+PQM, Kavathe Mahankal, Maharashtra 416405, India

Long 75.00125°

Lat 16.994302°

14/10/2023 09:10 AM



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Jr. College Index No. J 22.04.002 Website : www.pvpkm.org

Ref No. PVPKM/ 2023-24 .

Date : 21 Oct 2023 .

## Field -Work Completion Certificate

This is certifying that field work done by Department of Chemistry Padmabhushan Vasanthaodada Patil Mahavidyalaya, Kavathe Mahankal on “Survey of farmers fertilizer practices and perceptions in Kavathe Mahankal tehsil of Sangli district” has been completed satisfactorily. In this field work 04 teachers and 40 departmental students were participated.



  
PRINCIPAL,  
Padmabhushan Vasanthaodada Patil  
Mahavidyalaya, K. Mahankal, Dist-Sangli