

### DIRECTORATE OF RESEARCH MAHATMA PHULE KRISHI VIDYAPEETH

### RAHURI-413 722 DISTRICT: AHMEDNAGAR (M.S.)

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### **TESTING FACILITIES**

The Mahatma Phule Krishi Vidyapeeth, Rahuri has 27 research stations and sevens colleges spread over ten districts of Western Maharashtra. Depending upon nature of product and tests to be carried out the testing facilities are made available at these locations. However, some of the selected locations are indicated below.

Sr.	Type of Test	Conducting Location
<b>No.</b> 1	Pesticides:- Bioefficacy, Phytotoxicity, Compatibility and Natural enemies	Department of Entomology, Plant Pathology & Agril Microbiology, MPKV, Rahuri, CSRS, Padegaon, Ganeshkhind, Pune, College of Agril., Pune
2	Pesticide Residue	Residue Analyst, Department of Entomology, MPKV, Rahuri.
3	Soil, Water & Plant analysis	Department of Soil Science & Agril. Chemistry, MPKV, Rahuri.
4	Performance of plant growth hormones & Chemicals	Department of Horticulture, Agronomy, MPKV, Rahuri / ARS, Pimpalgaon Basawant, Ganeshkhind, Pune/ CSRS, Padegaon.
5	Herbicide: Bioefficacy, Phytotoxicity etc.	Department of Horticulture, Agronomy, MPKV, Rahuri, Ganeshkhind, Pune/ CSRS, Padegaon.
6	Farm equipments	Department of Farm Machinery & Power, MPKV, Rahuri / FIM Project, MPKV, Rahuri.
7	Irrigation equipment	Interfaculty Department of Irrigation Water Management / Department of Irrigation & Drainage Engineering, MPKV, Rahuri.
8	Animal Feeds and Medicine	Department of Animal Science & Dairy Science, MPKV, Rahuri.
9	Food analysis	Department of Food Science & Technology / Biochemistry, MPKV, Rahuri
10	Tissue Cultured seedlings etc.	Biotechnology Centre, MPKV, Rahuri.
11	Biopesticide and Biofertilizer	Department of Entomology, Plant Pathology & Agril Microbiology, MPKV, Rahuri.
12	Post harvest studies	Department of Horticulture, Entomology, MPKV, Rahuri, Ganeshkhind, Pune.
13	Improved varieties/ Hybrids	Crop Breeders / Specialists at different Research Stations / Department of Agril. Botany, MPKV, Rahuri
14	Processing Equipments	Department of Agril. Processing Engineering, MPKV, Rahuri.

# Product Testing Charges (Univ. Reso. No. MTG-2(129)/87/of2013, dated16/7/2013)

(In Rupees)

a	D (1)	(In Rupees)
Sr. No.	Particulars	<b>Testing Charges</b>
1.	Testing of liquid fertilizers, fertilizers, growth hormones,	
	micronutrients, pesticides for bioefficacy, (per crop, per season,	
	per product, per pest /disease), (In field/ pot culture) a) Cereals, pulses and oilseeds	60,000
	b) All vegetables	75,000
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	c) Cotton, Turmeric and Ginger	75,000
	d) Sugarcane	00.000
	i) Suru	90,000
	ii) Pre-seasonal	1,00,000
	iii) Adsali	1,25,000
	e) Banana, grapes, pomegranate, Strawberry and other fruits/ Floriculture (Open field)	90,000
	f) Protected cultivation of vegetables & flowers	1,50,000
	g) Additional information about effect of pesticides for	20,000
	each study: Natural Enemies (predators, parasite)	,,,,,,
	phytotoxicity and Compatibility	
	h) Weedicides / Herbicides testing in cropped area	60,000
	i) Weedicides / Herbicides testing in non cropped area	50,000
	j) Testing of seeds per sample for	
	a) Physical purity/ Germination percentage test	200
	b) Genetic purity	500
	c) DNA finger printing	20,000
	d) Charges for issuing certificate of Bio-technology Laboratory (Only for Western Maharashtra)	50,000
	k) Testing of grapes fruit bud differentiation of farmers	200
	sample-(per sample)	200
	1) Charges for testing the product against more than one pest/disease	25% for every
	in the same experiment	additional pest /
	•	disease
	m) Charges for follow up trial	Full charges as per
	n) In addition to above, additional charges for soil and plant	10,000
	analysis result of each study	10,000
	o) Testing of biofertilizer, bioagents & biopesticides (as per	Full charges as
	decision of the CSCP meeting held on 7/12/01)	per crop
	p) Only Separate trial for studies on phytotoxicity, compatibility and	20,000
	natural enemies	
2.	Azadirachtin content (Neem based) for Lab. analysis	10,000
3.	a) Spore count and $cfu$ at $10^{-6}$ , $10^{-7}$ & $10^{-8}$ dilution, pH,	3,000
	Moisture content and other contaminant in Biofertilizer / Biopesticide	,
	b) Biofertilizer/ Bioagent	As per Govt.
4.	Analytical test report of biofertilizers/ biopesticides	5,000

Sr. No.	Particulars	Testing Charges
5.	Harvest time residues in consumable products	
J.	per product / crop/ season (Fruit / Vegetable /	
	Cereals / Pulses/ Milk / Meat)	
	a) Company sample	1,00,000
	b) Farmers sample	15,000
6.	Dissipation studies on one crop or soil for season	1,50,000
7.	Analysis of self life study of processed product	As per crop
8.	Testing of varieties / hybrids per entry/ location / season	
	For yield	
	a) Short duration (One season crop)	50,000
	b) Long duration (more than one season-Cotton,	75,000
	Sugarcane, Banana)	27.000
	c) For reaction to diseases and pests (under protected condition)	25,000
	protected condition) d) Fees for conducting trials on transgenic crop	1,50,000
9.	Mineralization / transformation / release pattern of	50,000
	manures, fertilizers, micronutrients formulations	20,000
	in lab.	
10.	Irrigation Systems / Equipments	
	a) Testing of drip/Sprinkler set without crop	Set to be retained + 50,000
	b) Testing of Raingun without crop	Set to be retained + 50,000
	C) Testing of subsurface irrigation system without crop only Hydraulics	Set to be retained + Rs.50,000/-
	d} Testing of drip / sprinkler set with crop	Set to be retained +
		50,000+ crop charges
	e) Testing of Raingun with crop	Set to be retained +
	f) Tooting of subgrafe as immigation greaters	50,000+ crop charges
	f) Testing of subsurface irrigation system	Set to be retained + installation charges + crop charges
11.	Liquid / solid soluble fertilizers	Drip set to be retained
	1	+ Rs.50,000+ product testing
		charges as per crop or Rs. 75,000 +
		product testing charges as per crop
12	1.Roughness coefficient for pipes	a) PVC pipes Rs.25,000
		b) GI/CI pipes Rs.30,000
	2. Pumping Systems	Set to be retained + 25,000
	a) Treadle pumps reciprocating /Bullock	Set to be retained + 25,000
	Drawn b) Centrifugal Pumps Monoblock / Submersible	
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Note:

- The fees for crop trials are for area not more than 10 R.
   Additional fees will be charged on the basis of area, number of treatments and replications.

Sr. No.	Particulars	<b>Testing Charges</b>
13.	Analysis of sample for various parameter (per sample)	
I	Soil	25
	1. pH	25
	2. EC	25
	3. Available N 4. Available P	100
	5. Available K	100
	6. Calcium carbonate	50
	7. Organic carbon	60
	8. Exchangeable Ca, Mg, Na and K	50 each
	9. CEC	200
	10. Analysis of soluble salts (Ca, Mg, Na, K, CO <sub>3</sub> , HCO <sub>3</sub> , CL, SO <sub>4</sub> )	60 each
	11.Analysis of soluble salts (All eight)	
	12. Lime requirement	100
	13.Gypsum requirement	100
	14. Micronutrients (Fe, Cu, Zn, Mn, B, Mo)	100 each
	15. Mechanical analysis	150
	16. Bulk density	75
	17. Hydraulic conductivity	150
	18. Water holding capacity	150
II	Irrigation Water	
	1. Analysis of dissolved salts (Na,K,Ca, Mg, CO <sub>3</sub> , CI, HCO <sub>3</sub> , & SO <sub>4</sub>	60 each
	2. pH	25
	3. EC	25
III	Plant and plant parts / fodder and feeds	
	1. Total Nitrogen	100
	2. Total Phosphorus	100
	3. Total Potassium	100
	4. Ca, Mg, Na and K	100 each
	5. Micronutrients (Fe, Mn, Zn, Cu)	100 each
	6. Ether extract	200

Sr. No.	Particulars	Testing Charges
	7. Acid insoluble matter	100
	8. Moisture	100
	9. Water insoluble matter	100
	10.Ash	150
	11.Acidity	100
IV	Sewage	
	1. Total solids	150
	2. Nitrogen	150
	3. Phosphorus	150
	4. Potassium	150
	5. pH	25
	6. EC	25
	7. BOD	200
	8. COD	200
	9. Dissolved oxygen	100
	10. Micronutrints and heavy metals	150 each
V	Manures and fertilizers	
	1. Total N	200
	2. Total P	400
	3. Ammonical N	100
	4. Nitrate N	100
	5. Water soluble P	400
	6. Citrate soluble P	400
	7. Water soluble K	150
	8. Total potash	200
	9. Acidity in ammonium sulphate	100
	10. Free acidity in super phosphate	100
	11. Acid soluble (CaO, MgO, NaO, K <sub>2</sub> O)	100 each
	12. Ash	200
	13. Moisture	200
	14. Organic carbon	300
	15.Humic acid	400
	16.Fulvic acid	400
	17. pH 18. EC	100 100

VI Analysis of food	Charges
VI Analysis of food	
1. Determination of oil quality, physical / chemical parameters	500
2. Determination of ascorbic acid in fruits / vegetables	250
3. Determination of polyphenols and tannins	250
4. Determination of β-carotene	250
5. Determination of amino acids methionine & tryptophan	250
6. Determination of plant pigments (Chlorophyll a + b)	250
7. Determination of total amino acids or protein	250
8. SDS-PAGE pattern of soluble proteins on slab gels or rod gels (Minimum 10 samples)	1000
9.Determination of proline	250
10.Determination of reducing sugars	250
11.Determination of non-reducing sugars	250
12.Determination of crude proteins	250
13. Crude fiber	250
14.Determination of amylose content	250
15.Determination of capsaicin content	250
16.Determination of curcumin content	250
17.Determination of IVPD/IVSD	250
18.Determination of Lysine content	250
19.Determination of total P & phytate phosphorus	250
.20.Determination of trypsin inhibitor activity	500
21.Evaluation of protein fractions	500
22.Estimation of gossypol content	500
23.Determination of enzyme activity (Minimum ten samples)	
a) Peroxidase (POD)	250/-sample
b) Polyphenol oxidase (PPO)	250/-sample
c) Alfa-amylase	250/-sample
d) Nitrate reductase	250/-sample
e) PAL	250/-sample
f) Chitinase/ glucanase	250/-sample
g). Crude oil content	250/-
h) Superoxide dismutase	250/-sample
i) Ascorbate peroxidase	250/-sample
j) glutathione peroxidase	250/-sample
24. Analysis of oleo-raisins	10,000

Sr.	Particulars	Testing
No.	25. Analysis of processed fruits & Vegetable Products, other food	Charges 750
	products depending upon the analysis (per parameter)	730
	26. Practical demonstration of single processed product of fruits or	750
	vegetables or bakery products	7500
	27. Analysis of Carbohydrates- Sugar, cellulose, hemi cellulose, lignin, ADF, NDF etc.(Minimum ten samples or part thereof)	7500
	Field testing of farm machinery and equipments (Tractor drawn)	
VII		
	Mould board plough	30,000
	2. Disc harrow	30,000
	3. Puddler	30,000
	4. Seed-cum-fertilizer drill/ planter (field)	30,000
	5. Field performance evaluation of power tiller	30,000
·	6. Levelling (Keni) / Scoop	30,000
	7. Weeder	30,000
	8. Bund former	30,000
	9. Ridger	30,000
	10. Transplanter	30,000
	11. Rotavator	30,000
	12. Cotton stalk puller	15,000
	13. Thresher	30,000
		,
	14.Tractor trailer (Four wheel)	30,000
	15.Chaff cutter	30,000
	16.Blade leveler	30,000
	17.Cultivator	30,000
	18.Sprayer (Tractor Drawn)	30,000
	19.Srayer (Power Tiller Drawn)	30,000
	20.Sprayer (Battery/ Motor operated)	20,000
	21.Tractor	75,000
	22.Self propelled machines	30,000
	23.Testing of solar operated light trap	5,000/
		season
	24.Testing of electrically operated light trap	5,000/
	25.Agricultural trailor (Two wheel)	season 30,000
	26. Any other implements/ tools	30,000
VIII	Hand tools/ Manually opereted	20,000
	1. Sickles / Khurphee etc.	5,000
	2. Seed, Cum-Fertilizer drill / planter	10,000
	3. Weeder	10,000
<u></u>	4.Thresher	10,000
	4.1 III CSIICI	10,000

Sr. No.	Particulars	<b>Testing Charges</b>
	5.Chaff cutter	10,000
	6.Cycle Hoe	10,000
	7.Coconut Dehusker	10,000
	8. Sprayer pump	10,000
	9. Tiller Cutter (except prime mover)	35,000
	10. Any other implement / tools	10,000
IX	Bullock Drawn Implements	
	1.Mould Board plough	15,000
	2.Disc harrow	15,000
	3.Puddler	15,000
	4.Seed cum Fertilizer drill/planter	15,000
	5.Leveling (Keni) / Scoop	15,000
	6.Weeder	15,000
	7.Cultivater	15,000
	8.Bund former	15,000
	9.Ridger	15,000
	10.Transplanter	15,000
	11.Sprayer	15,000
	12.Bullock cart	15,000
	13. Steel wheel or rubber wheel bullockcart	15,000
	14. Sugarcane earthing up equipment	20,000
	15.Multipurpose tool bar	25,000
	16. Any other implement / tools	15,000
X	Performance testing of processing equipments	
	1.Mini Rice Mill	20,000
	2.Composite Rice Mill	30,000
	3.Modern Rice Mill	50,000
	4.Clearer cum Grader	15,000
	5.Destoner	15,000
	6.Paddy husker	10,000
	7.Paddy separator	15,000
	8.Rice Grader	10,000
	9.Bran Aspirator	10,000
	10.Flour Mill	15,000
	11.Pulversier	15,000
	12.Sugarcane Crusher	20,000
	13.Shewai Machine	10,000

Sr. No.	Particulars	Testing Charges
	14.Papad Machine	10,000
	15.Paddy Thresher	15,000
	16.Juicer	5,000
	17.Grinder	5,000
	18.Poha Mill	20,000
	19.Polisher	15,000
	20.Pulse Mill	50,000
	21.Oil Mill	50,000

Note:
1. Testing of equipments will be on site.



### No. (Start from2001 & end at 3000) MAHATMA PHULE KRISHI VIDYAPEETH RAHURI, 413 722, DIST. – AHMEDNAGAR MAHARASHTRA

# **DIRECTORATE OF RESEARCH Application Form For Testing of Product**

:

2)	Name of proprietor/ owner of firm	:
3)	Name of the product offered for testing / trial	:
4)	Technical details or composition of product with quantitative analytical estimates	:
5)	Package (s) of products available	:
6)	Claims with specific parametric achievements (attach literature in support of the claim)	:
7)	Doses of the products on a crop	:

Name of the Firm

1)

8)	Schedule of treatment to be followed quantity wise	:
9)	Methods of use & any special equipment required	:
10)	What control / check to be used in experimental testing for comparison purposes.	:
11)	Crops, season & locations where experiments can be laid out	:
12)	Quantity of samples & area proposed for experimental purpose.	:
13)	Any other relevant information	:
	Date	Signature



### DIRECTORATE OF RESEARCH MAHATMA PHULE KRISHI VIDYAPEETH RAHURI, 413 722, DIST. – AHMEDNAGAR MAHARASHTRA

## Terms and conditions for product testing (Univ. Reso. No. MTG-2(129)/87/of2013, dated16/7/2013)

- 1. The firm interested in testing of their products by the University should contact the Director of Research and submit the application in the prescribed form (Proforma enclosed).
- 2. The manufacturer will initiate the correspondence well in advance so that the testing can be taken in normal planting season of the crop. The University has right to postpone the testing in the next season in case the sample and testing fees are not received in time.
- 3. The firm concerned should supply the product to be tested, free of cost, well in advance and in sufficient quantity.
- 4. The firm should give detail information about the active ingredients, chemical composition, adjuvants, biological and other properties of the product and the purpose of testing.
- 5. On acceptance of testing, the prescribed fees will have to be paid by the firm in advance, for testing the product, by D. D. on S. B. I. drawn in the name of P. A. O. of the respective region i. e. Pune, Dhule, Kolhapur or MPKV., Rahuri.
- 6. The University will not recommend the product unless tested for three seasons or as decided by the University but will make available the results to the concerned firm only.
- 7. The details of the layout of field experiments will be finalized by the concerned scientist in consultation with the concerned Head of the Department and the Director of Research.
- 8. The results of the product will be made available to the firm concerned at the end of the season.
- 9. The University reserves the right to accept/reject or modify the testing the product, for which no reason will be given thereof.
- 10. In the event of failure of the trial due to natural calamities or things beyond the control of the scientists concerned, the testing will be repeated for one more season and the firm will have to bear additional 50 per cent expenses as per described fees for the season which shall be paid in advance.
- 11. The university also reserves the right for publishing the findings of the work.
- 12. In any case, once the product testing is undertaken by the University after receipt of payments, the testing / trials will not be cancelled and the fees will not be refunded to the firm.
- 13. In case of dispute in the testing of the product, the decision of the university authority will be final. The firm shall not take any legal action against the university.
- 14. The fees for testing the product for animals and birds will be decided by the Director of Research in consultation with the concerned Head of the Department, based on type of the trial and work involved. Other terms and conditions will remain same as above.
- 15. The Mahatma Phule Krishi Vidyapeeth, Rahuri is established under the Government of Maharashtra. It is engaged primarily in Agricultural Education, Research and Extension Education activities and as such this University is not entitled to issue the Tax Exemption Certificate. Similarly, there is no Provision of Accepting Testing Fees after Deducting Tax at Source.



### No. (Start from 2001 & end at 3000) MAHATMA PHULE KRISHI VIDYAPEETH RAHURI, 413 722, DIST. – AHMEDNAGAR

# MAHARASHTRA DIRECTORATE OF RESEARCH

### **Application Form For Testing Hybrids / Varieties of Seed Companies**

1)	Name of the Seed Company	:	
2)	Name of proprietor/ owner of Seed Company	:	
3)	Name of the crop & hybrids / varieties to be used	:	
4)	Location where trial can be laid out (Preference if any)	:	I. II. III.
5)	Season Kharif / Rabbi / Summer	:	
<b>6</b> )	Conditions under which testing is to be done (Irri. / Rainfed)	:	
7)	Trials to be conducted for  i. Yield performance  ii. Reaction to major diseases  iii. Reaction to major pests  iv. Testing for quality of parameters  (Oil / Protein etc.)	:	
8)		:	
9)	Letter of authorization to test / screen the variety	:	
10)	Any other relevant information	:	
P	Place :		
	Date:		Signature



### MAHATMA PHULE KRISHI VIDYAPEETH

### RAHURI, 413 722, DIST. – AHMEDNAGAR MAHARASHTRA DIRECTORATE OF RESEARCH

(Univ. Reso. No. MTG-2(129)/87/of2013, dated16/7/2013)

### Terms and conditions for testing hybrids/varieties of seed companies

- 1. The seed company interested in testing of their hybrids/varieties by the university should contact the Director of Research and submit the application in the prescribed form (proforma enclosed).
- 2. The seed company will initiate the correspondence well in advance so that the testing can be taken in normal planting season of the crop. The university has right to postpone the testing in i. e. before 31<sup>st</sup> May for Kharif, 31<sup>st</sup> August for Rabi and 31<sup>st</sup> January for summer season.
- 3. The seed company concerned should supply the hybrids/varieties to be tested, free of cost, well in advance an in sufficient quantity as decided by the University.
- 4. The seed company should give detail information regarding morphological/genetical characters, reaction to diseases and pests, quality parameters and yield performance of the hybrids/varieties and the purpose of testing.
- 5. On acceptance of testing, the prescribed fees will have to be paid by the company in advance, for testing the hybrids/varieties by DD on S. B. I. drawn in the name of P. A. O. of the respective region Pune, Dhule, Kolhapur or MPKV., Rahuri.
- 6. The details of the layout of field experiments will be finalized by the concerned scientist in consultation with the concerned Head of the Department and the Director of Research.
- 7. The results of the hybrids/varieties tested will be made available to the seed company concerned at the end of the season.
- 8. The University reserves the right to accept/reject or modify the testing of hybrid/varieties, for which no reason will be given thereof.
- 9. In the event of failure of the trial due to natural calamities or things beyond the control of the scientists concerned, the testing will be repeated for one more season and the seed company will have to bear additional 100 per cent expenses as per prescribed fees for the season which shall be paid in advance.
- 10. The University also reserves the right for publishing the findings of the work.

- 11. In case of dispute in the testing the hybrid variety the decision of the university authority will be final. The firm shall not take any legal action against the university.
- 12. In any case, once the product testing is undertaken by the University after receipt of payments, the testing / trials will not be cancelled and the fees will not be refunded to the firm.
- 13. The Mahatma Phule Krishi Vidyapeeth, Rahuri is established under the Government of Maharashtra. It is engaged primarily in Agricultural Education, Research and Extension Education activities and as such this University is not entitled to issue the Tax Exemption Certificate. Similarly, there is no Provision of Accepting Testing Fees after Deducting Tax at Source.

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