

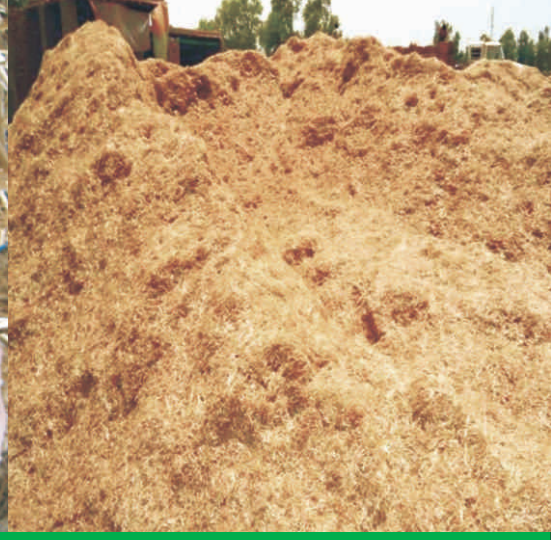

Bio-energy Potential From Agricultural Crop Residue & Animal Husbandry Waste in Uttar Pradesh




Bio-energy Plants

BIO-ENERGY POTENTIAL FROM AGRICULTURAL CROP RESIDUE & ANIMAL HUSBANDRY WASTE IN UTTAR PRADESH

U.P. State Bio-Energy Development Board,
5th Floor, Yojna Bhawan, Lucknow
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Dated : November, 2017

MESSAGE

The use of Biomass waste as renewable source of energy has drawn world-wide interest in the last few decades. The major driving force behind such new developments are the incessantly increasing energy demands and rapidly diminishing conventional sources of energy such as oil and coal etc. Increasing demand of green energy due to more and more awareness about climate-change-effects is also another major reason to think about biomass based energy. Utilisation of biomass feedstock for energy production beckons us to facilitate all of energy requirements whether electricity or any other fuels to substitute regular diesel, petrol, CNG or LPG in most cost effective measures.

Our State is very rich in four distinct sources of biomass energy, namely energy plantations, agricultural crop residue and municipal & industrial wastes and cattle dung. These bio-resources can easily be converted into green energy. Statistically speaking, about 156 million tonnes of crop residues every year, a large portion of which is either wasted away or used inefficiently. This quantum of bio-mass waste is equivalent to 2,781.723 MMJ of renewable/green energy resources every year which is equivalent to 175.50 million tonnes of regular coal. Along with agriculture-residues, animal husbandry waste is also in huge quantity. It's quantum is about 6,92,062.07 MT per day which is equivalent to 3,46,03,103.50 Cubic Meter biogas or 1,45,33,302 Kg Natural gas/Methane. It's calorific value is about 755.731 MMJ per day. In the light of above, U.P. is the first State in the country working on the complete spectrum of bio-energy i.e. Bio-gas/Bio-cng, Producer gas, Bio-diesel and Bio-ethanol with government policy initiatives.

U.P. State Bio-energy Development Board has prepared a detailed document on agriculture-residues. It shall be easily available for green energy production and creation of sustainable self-employment opportunities for youth. Hope, it will be of great use for the formulation of policy as well as to entrepreneurs/corporate sector in planning their venture in green-energy sector. I appreciate very highly pain-staking efforts of State Coordinator/Member convener of the Board and his team and wish a great success ahead.

(Rajive Kumar)

Sanjiv Saran, I.A.S.
Addl. Chief Secretary

D.O. Letter No. .....

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MESSAGE

Bio-energy is derived from renewable bio-mass resources, therefore, provides a strategic advantage to promote sustainable development and to supplement conventional energy sources in meeting the rapidly increasing requirements for transportation fuels associated with high economic growth, as well as in meeting the energy needs of India's vast rural population. It can increasingly satisfy these energy needs in an environment-friendly and cost-effective manner while reducing dependence on import of fossil fuels and thereby providing a higher degree of National Energy Security. Developing country like us, apart from these considerations, also views bio-energy as a potential means to stimulate rural development and create sustainable self-employment/ employment opportunities. The Indian approach to bio-energy, in particular, is somewhat different to the current international approaches which could lead to conflict with food security. It is based solely on non-food feed-stocks to be raised on degraded or waste land not suitable to agriculture and horticulture activities, thus avoiding a possible conflict of fuel vs. food security.

U.P. is the first State in the country which has an independent Bio-energy Policy. This policy addresses the complete spectrum of bio-energy whether it is in the solid, liquid or gaseous form under five major components like "Mission-Biodiesel", "Mission-Bio-ethanol", "Mission producer gas", "Mission Biogas" and "Mission Climate resilient agriculture activities" for assuring regular income to the farmers even in adverse environmental conditions. In the execution of all these programmes, huge quantum of biomass is produced as by-product having intrinsic energy value in huge quantum. These intrinsic energy values are being harnessed under "Mission-Biogas/Bio-CNG" and "Mission-producer Gas" following the entrepreneurship mode under "Value-chain-mechanism" under close technical coordination, monitoring and follow-ups of U.P. State Bio-energy Development Board.

"Bio-energy potential from Agricultural crop residues and animal husbandry waste in Uttar Pradesh" is an important document prepared by State Coordinator/Member convener and his team. It will be like a hand book to policy makers who are in search of environment-friendly sustainable development of the Society with creating large quantum of sustainable self-employment opportunities at decentralised level. It will produce a ready statistics and alternate work avenues to those departments who are working for energy development, sanitation, rural development, agriculture, horticulture, dairy development and similar other department who are working for the development of the whole rural community.

I thank Sri P.S. Ojha and his team for his pain-staking efforts to bring the importance of bio-degradable waste & it's intrinsic green energy values in the notice of policy makers and wish him all success in his "Mission of environment-friendly sustainable self-reliance".

(Sanjeev Saran)

मुख्य महाप्रबन्धक
Chief General Manager

NABARD

26th October 2017

MESSAGE

Biomass is a renewable source of fuel to produce energy which uses waste like scrap wood, mill residuals, forest resources, agriculture residue and the residual biological matter from other sources like animal husbandry.

World over and more so in agrarian economy like India, the residual surplus having potential of energy generation is tremendous with adequate and appropriate technologies.

Climate Change issues, ever increasing high energy demands and related quest for sustainable sources of energy with diminishing carbon footprints have catapulted the initiatives under the bioenergy realm. NABARD as National Implementing Entity under National Adaptation Fund on Climate Change is exploring the possibilities of working with UP State Bio Energy Board for addressing the issue of Agriculture residue burning in the State of UP.

I am glad to note that UP State Bio energy Development Board has prepared a comprehensive document on usage of abundantly available residues from agriculture and allied sector like animal husbandry in the State of Uttar Pradesh. The model envisages linkage of sustainable livelihood opportunities for the youth as well as showcases a possible model for helping achieving doubling of Farmers Income goals set out by the Government of India.

I am sure the document will help different stakeholders in the State for addressing the larger climate change issues gainfully and in a "win-win" model for the grass root farmers as well as primary producers.

I commend the efforts of the UP State Bio energy Board in bringing out the present volume.

(A.K. Panda)

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Renuka Kumar I.A.S.
Principal Secretary

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FOREWORD

I am happy to note that U.P. State Bio Energy Development Board in consultation with Directorate of Environment, UP has prepared a book on **"Bio-Energy potential from agricultural crop residue & animal husbandry waste in Uttar Pradesh"** to inculcate awareness among the state government officers, entrepreneurs, youths, farmers and rural communities about the sustainable use of bio-energy captured from the crop-harvest residue and animal husbandry waste.

The crop harvest residue which is being burnt by the farmers generates green house gases, causes smog in NCR region and has serious ramifications on crop land and Air Quality of the region. The solution to the problem lies not merely imposing penalties but in sensitizing them about the behavioral change and making them understand the value of "Waste to Wealth". The document emphasizes upon the green energy technologies being successfully used in UP. This document per se will be helpful to leverage the investments in Bio-Energy plants in Uttar Pradesh.

I am hopeful that compilation of sucess stories on transformation of Waste to Energy inscribed in the book will enable the policy makers, entrepreneurs and the rural communities to understand the promising potential of green energy and emulate the various initiatives taken by the rural communities in UP to use the bio-energy for their resource management and income generation. Ecological integrity has become an important factor in the development of any country and I am happy to note that the book in a simple and elegant manner brings out the issues for discussion, debate and assimilation.

I congratulate U.P. State Bio-Energy Development Board and Directorate of Environment, U.P. for the joint publication of this book. "Small Actions can make a big difference". Share what you know and pass on the knowledge to those who actually need it.

(Renuka Kumar)

From the editorial desk:-

Uttar Pradesh is an agriculture based state with a total reported area of 2.42 crore hectares. It includes forest land of 16.60 lakh hectares, barren land of 4.57 lakh hectares, suitable land for alternate uses other than agriculture of 28.93 lakh hectares, wasteland of 4.19 lakh hectares, grazing & grassland of 4.16 lakh hectares, fallow & uncultivated land of 17.05 lakh hectares and land under regular cultivation is 1.66 crore hectares. It reflects that a huge quantum of land resources in the State is either non-utilized or marginally utilized.

The State Bio-energy Policy facilitates us to use such land not suitable for agriculture, horticulture or pasture development may be utilized for production of feed-stocks for bio-energy sector industrial units whether producing bio-diesel, bio-ethanol, bio-CNG/ bio-gas or producer gas/ bio-coal/ bio-char. Thus by tapping its internal non-conventional energy resources based on bio-logical inputs like TBOs, agricultural residues, animal husbandry waste, MSW etc, Uttar Pradesh shall soon become self-reliant in the energy sector along-with addressing the climate change effects on sustainable basis. The programmes run by the U.P.State Bio-energy Development Board under the purview of the policy shall address the climate change affect like smog, irregular weather and similar other environmental hazards etc.

Recently, the notifications issued by Hon'ble National Green Tribunal to the NCR States for resolving the smog problems on sustainable basis. Such notification issued by NGT motivated us to do needful as early as possible. Before coming to a permanent solution one should have to know about the present status and available quantum of bio-mass in the State. For such documentation, Board's team comprising of Sri R.K.Shukla, Dr. Virendra Kumar, and Sri Ajey Singh worked hard and collect the basic information about agriculture production from agriculture department, no. of animals from animal husbandry department and no. of sugar mills, cane crushed and total area under cane cultivation with total cane production from Sugar cane department. Sri Sunil Ohri, General Manager, U.P. Cooperative Sugar Factories Federation Limited and Sri Anand Tripathi, Joint Director, Agriculture Department, U.P. Sri Nabin Kumar Roy, Assistant General Manager, NABARD facilitated very useful information about agricultural wastes, sugarcane trashes and press-mud. RPR (Residues to production ratio) index was taken from the published document of Indian Institute of Science, Bangaluru. Finally our team calculated the district wise bio-mass, cow-dung, press-mud and cane trashes whose open burning at the farms have been highlighted as one of the major reason of smog in NCR by NGT. Technical inputs and other facilitation of the officers mentioned above are highly appreciated.

Departments are of the view that "waste is no more waste; it is a resource for the community and ultimately a resource for the nation" and we are utilizing these resources for production of green energy (Solid, liquid and gaseous mode) and bio-manure production. It also supports our environmental consecration and organic farming efforts and finally facilitates the execution machinery for doubling the farmer's income and sustainable self-employment opportunities to youths.

Finally, the book will provide first hand information to policy makers translating the agenda of doubling the farmers income, organic farming, renewable energy specially bio-energy, environmental conservation and sustainable self-employment opportunities of "Lok-Kalyan-Sankalp-Patra-2017" in to ground realty. The total energy values of 156 MMT agricultural residues in the State is equivalent to 175.50 MMT traditional coal per annum, while 2.481 MMT press mud yields about 130252.50 MT bio-CNG production per year and 6,92,062 MT animal dung yields 14,533.30 MT bio-CNG per day along-with huge quantum of bio-manure. The document got the presentable shape under esteemed guidance of Chief Secretary, Govt. of U.P., Additional Chief Secretary, Department of Planning, Principal Secretary, Forest & Environment, Principal Secretary, Department of Agriculture, Govt. of U.P. and Finance controller, Department of Planning. We are extremely thankful to Chief General Manager, NABARD and his team of officials for their active support to start a new era of agripreneurship / entrepreneurship in the State through facilitating NAFCC and FPO networking. This book will also be useful to those who have the quest of developing a environment-friendly self reliant economy based on bio-energy and climate resilient agriculture activities through utilizing the un-utilized/ marginally utilized land rsources.

Place: Yojna Bhawan, Lucknow
Dated: December 15th, 2017

Soraj Singh
P.S. Ojha
Dr. A.A. Khan

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Biomass energy potential in Uttar Pradesh

Energy is the basic input of any development process. More the energy consumption per capita, more is the development. But rampant utilization of energy sources leads to origin of different types of pollution problems around the globe and simultaneously, consumption the energy resources in such level will results as they would not be available for our upcoming generations. Climate change, global warming, irregular rainfall and long drought are the outcomes of the recent scenarios. The solutions of these problems are lying only in our switch over from fossil fuels to renewable energy sources. The renewable energy sources like wind energy, solar energy, geothermal energy, ocean energy, biomass energy can be used to overcome energy shortage in India. These technologies have potential to provide solutions to the long-standing energy problems being faced by the developing countries. To meet the energy requirement for such a fast growing economy, India will require an assured supply of 3-4 times more energy than the total energy consumed today. The renewable energy is one of the options to meet this requirement. Therefore, India is increasingly adopting responsible renewable energy techniques and taking positive steps towards carbon emissions, cleaning the air and ensuring a more sustainable future.

Among all the renewable energy sources, biomass energy is the most cheap and compatible natural energy resources. In India more than 80% rural households are still dependent on local biomass for their domestic consumption and Uttar Pradesh has highest consumption of biomass based fuel among all the other states of India. This shows that there is still a huge availability of biomass in the rural areas of the country but its scattered and improper utilization converts these resources into waste.

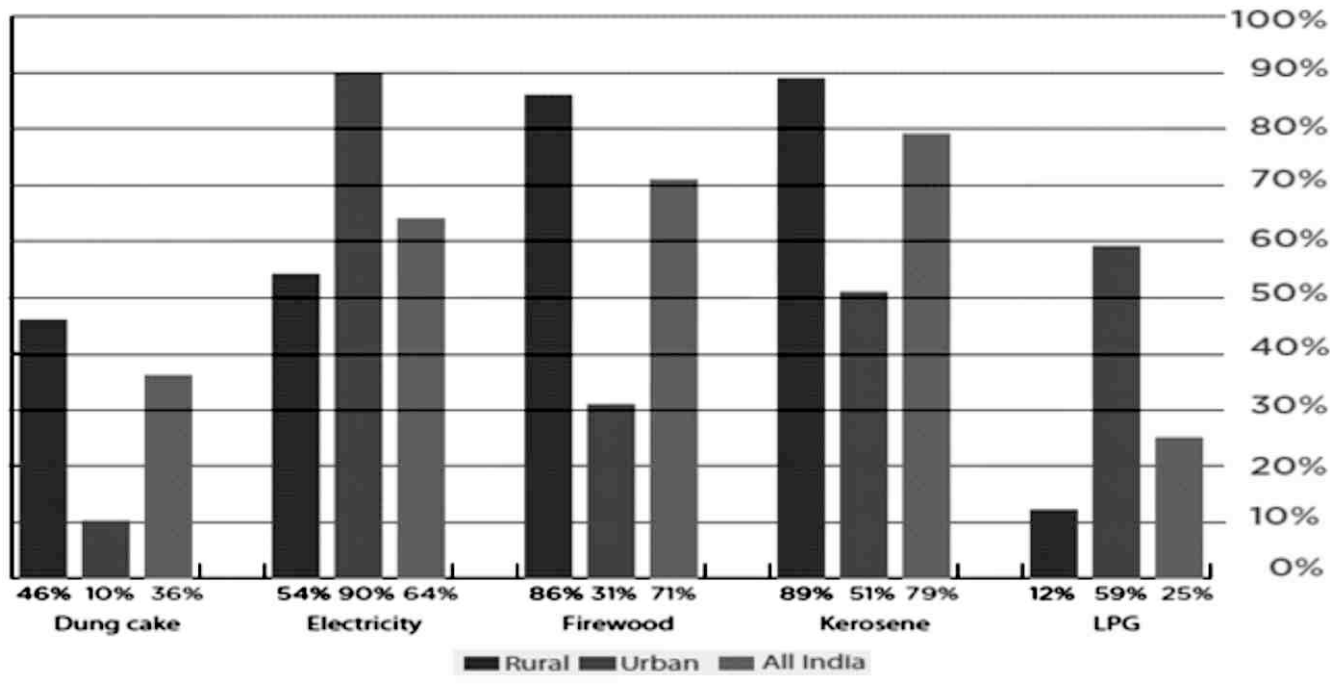

Figure: Different household fuel consumption in India [1]

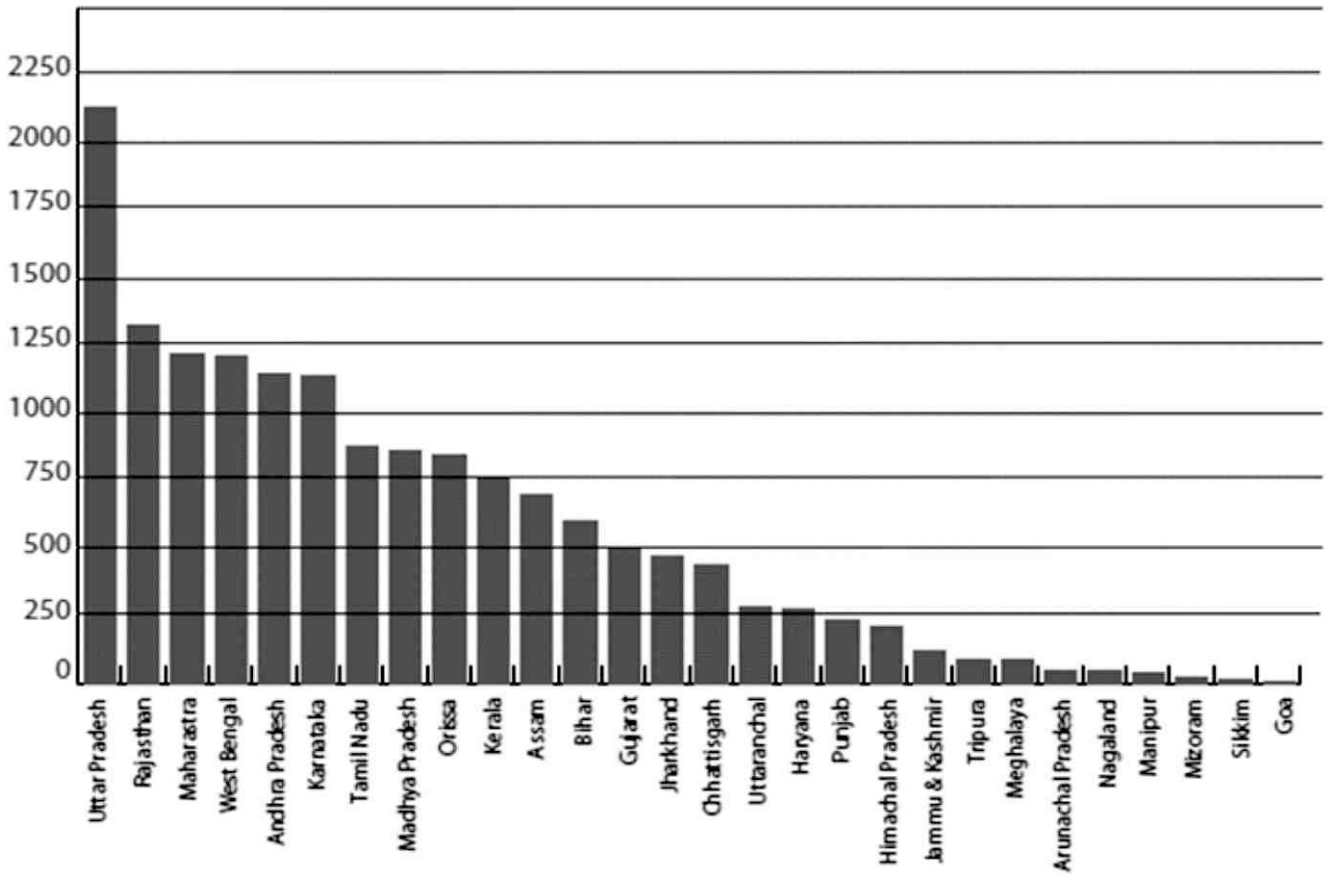

Figure: Total Quantity of Firewood Consumed by Rural Households Per Month (In Millions of Kilograms) [1]

An estimated data shows that about 1545.402 Lakh tons of biomass/year equivalent to 27817.23 MJ of energy, is available from different major crops in Uttar Pradesh. The proper utilization of this biomass can be a huge source of biomass energy which will leads to the generation of a large number of self employment and entrepreneurship opportunities by installing Bio-CNG plants, Bio-Coal plants, Biomass gasifier plants in their local areas. Along-with 6,92,062.7 MT per day dung and other animal husbandry waste are produced. These are also the rich source of green energy and it's calorific values is 414.30 MMJ per day. This document is an attempt to analyse crop residue potential of different districts of Uttar Pradesh.On the basis of this data one can able to plan for the best utilization of these crop residues for industrial application in entrepreneur mode. This data will also help in get rid of crop residue burning problems of Delhi-NCR region which become threat of life for the people living in this region.

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[1]*Richard Woodbridge, Mohit Sharma, David Fuente : Atlas of Household Energy Consumption and Expenditure in India*

Agricultural Crop Residue Production

S. NO.	AGRICULTURAL CROPS TAKEN FOR STUDY
1	**Rice**
2	**Wheat**
3	**Bajra**
4	**Barley**
5	**Jowar**
6	**Linseed**
7	**Groundnut**
8	**Sunflower**
9	**Arhar**
10	**Lentil**
11	**Gram**
12	**Sugar cane**
13	**Maize**
14	**Rape Seed and Mustard**
15	**Til (Sesame)**
16	**Moong**
17	**Urad**

Crop Residue Potential Ratio (RPR)

RICE/PADDY

Residue available for 1 kg of Crop		
Crop Name	**Residue name**	**Amount in Kg**
Paddy	Husk	0.2
	Stalks	1.5
	Straw	1.5

WHEAT

Residue available for 1 kg of Crop		
Crop Name	**Residue name**	**Amount in Kg**
Wheat	Pod	0.3
	Stalks	1.5

BAJRA

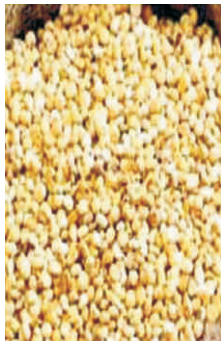
Residue available for 1 kg of Crop		
Crop Name	**Residue name**	**Amount in Kg**
Bajra	Cobs	0.33
	Husk	0.3
	Stalks	2

BARLEY

Residue available for 1 kg of Crop		
Crop Name	**Residue name**	**Amount in Kg**
Barley	Stalks	1.3

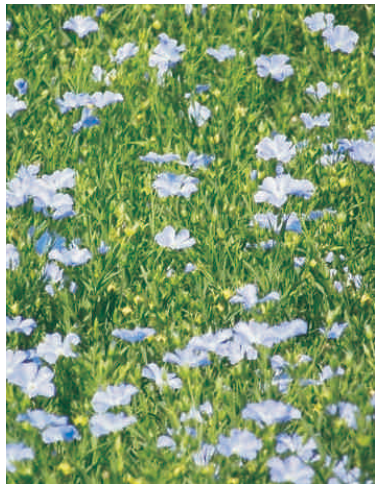
JOWAR

Residue available for 1 kg of Crop		
Crop Name	**Residue name**	**Amount in Kg**
Jowar	Cobs	0.5
	Husk	0.2
	Stalks	1.7



LINSEED

Residue available for 1 kg of Crop		
Crop Name	**Residue name**	**Amount in Kg**
Linseed	Stalks	1.47



GROUNDNUT

Residue available for 1 kg of Crop		
Crop Name	**Residue name**	**Amount in Kg**
Ground Nut	Shell	0.3
	Stalks	2.0

SUNFLOWER

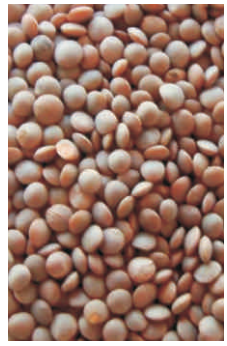
Residue available for 1 kg of Crop		
Crop Name	**Residue name**	**Amount in Kg**
Sunflower	Stalks	3.0

ARHAR

Residue available for 1 kg of Crop		
Crop Name	**Residue name**	**Amount in Kg**
Arhar	Husk	0.3
	Stalks	2.5

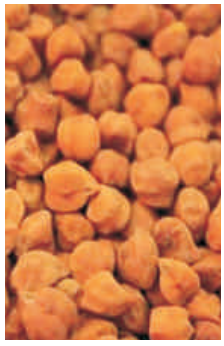
MASOOR/LENTIL

Residue available for 1 kg of Crop		
Crop Name	**Residue name**	**Amount in Kg**
Lentil	Stalks	1.8



GRAM

Residue available for 1 kg of Crop		
Crop Name	**Residue name**	**Amount in Kg**
Gram	Stalks	1.1



SUGARCANE

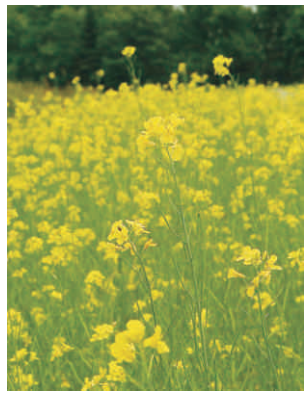
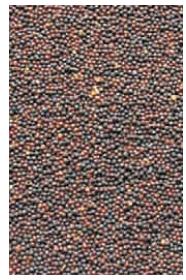
Residue available for 1 kg of Crop		
Crop Name	**Residue name**	**Amount in Kg**
Sugarcane	Bagasse	0.33
	Top & Leaves	0.05

MAIZE

Residue available for 1 kg of Crop		
Crop Name	**Residue name**	**Amount in Kg**
Maize	Cobs	0.3
	Stalks	2


RAPE SEED AND MUSTARD

Residue available for 1 kg of Crop		
Crop Name	**Residue name**	**Amount in Kg**
Rape Seed And Mustard	Stalks	1.8

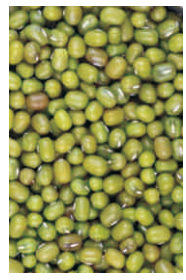



TIL (SESAME)

Residue available for 1 kg of Crop		
Crop Name	**Residue name**	**Amount in Kg**
Til (Sesame)	Stalks	1.2


MOONG

Residue available for 1 kg of Crop		
Crop Name	**Residue name**	**Amount in Kg**
Moong	Husk	0.15
	Stalks	1.1

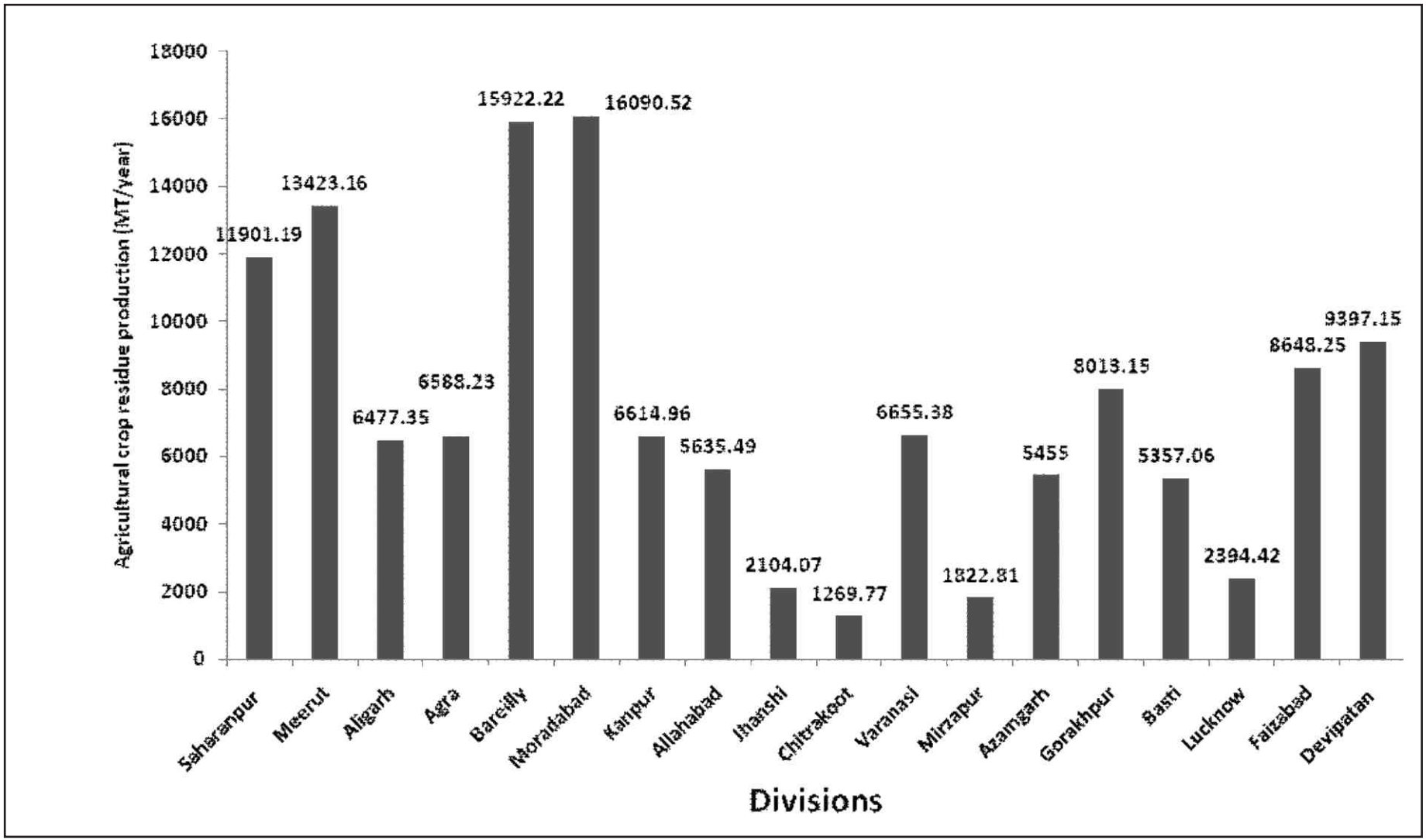
URAD

Residue available for 1 kg of Crop		
Crop Name	**Residue name**	**Amount in Kg**
Urad	Husk	0.2
	Stalks	1.1


AGRICULTURAL CROP RESIDUE PRODUCTION FROM DISTRICTS OF UTTAR PRADESH

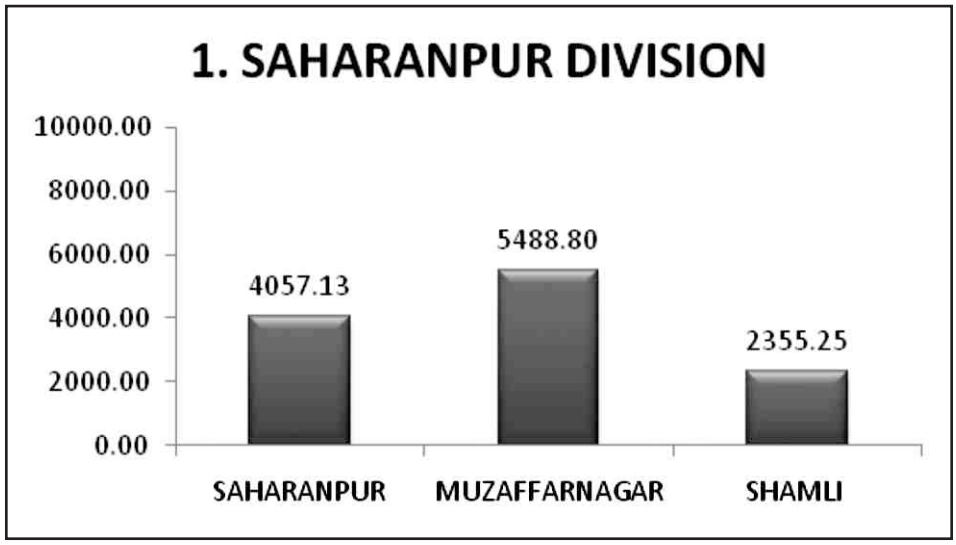
Divisions		District		Crop Residue Production (MT/Year)
1	SAHARANPUR	1	SAHARANPUR	4057133.72
		2	MUZAFFARNAGAR	5488800.04
		3	SHAMLI	2355251.7
2	MEERUT	4	Meerut	4322416.06
		5	BAGHPAT	2564785.37
		6	BULAND SHAHAR	3745476.46
		7	GHAZIABAD	847624.38
		8	GAUTAM BUDDH NAGAR	531632.46
		9	HAPUR	1411224.86
3	ALIGARH	10	ALIGARH	2744264.79
		11	HATHRAS	916574.13
		12	ETAH	1476623.03
		13	KASHGANJ	1339884.09
4	AGRA	14	AGRA	1556734.47
		15	MATHURA	1775971.78
		16	FIROZABAD	1253441.63
		17	MAINPURI	2072086.22
5	BAREILLY	18	BAREILLY	4257609.99
		19	BADAUN	2885627.75
		20	SHAHJAHANPUR	4678555.19
		21	PILIBHIT	4100422.34
6	MORADABAD	22	BIJNOR	6292960.26
		23	MORADABAD	2673631.7
		24	AMROHA	2754865.49
		25	RAMPUR	2331464.73
		26	SAMBHAL	2037595.99
7	KANPUR	27	FARRUKHABAD	876805.89
		28	KANNAUJ	820731.73
		29	ETAWAH	1323762.26
		30	AURAIYA	1376920.89
		31	KANPUR NAGAR	886105.41
		32	KANPUR DEHAT	1330629.62
8	ALLAHABAD	33	FATEHPUR	1662902.11
		34	ALLAHABAD	1821230.77
		35	KAUSHAMBI	687722.67
		36	PRATAPGARH	1463637.28
9	JHANSI	37	JHANSHI	838780.48
		38	LALITPUR	557941.94
		39	JALAUN	707344.81

10	**CHITRAKOOT**	40	HAMIRPUR	501681.89
		41	MAHOBA	151254
		42	BANDA	357582.91
		43	CHITRAKOOT	259255.86
11	**VARANASI**	44	VARANASI	727847.77
		45	CHANDAULI	1515079.51
		46	GHAZIPUR	2164700.1
		47	JAUNPUR	2247752.53
12	**MIRZAPUR**	48	MIRZAPUR	891987.93
		49	SONBHADRA	471513.37
		50	BHADOHI	459310.76
13	**AZAMGARH**	51	AZAMGARH	2962571.76
		52	MAU	956752.72
		53	BALLIA	1535674.57
14	**GORAKHPUR**	54	GORAKHPUR	1527292.84
		55	MAHRAJGANJ	2530456.4
		56	DEORIA	1249573.65
		57	KUSHINAGAR	2705831.79
15	**BASTI**	58	BASTI	2105073.98
		59	SIDDHARTHNAGAR	2314584.72
		60	SANT KABIR NAGAR	937405.75
16	**LUCKNOW**	61	LUCKNOW	688300.98
		62	UNNAO	1585613.33
		63	RAEBARELI	1481948.67
		64	SITAPUR	5901447.36
		65	HARDOI	3936830.2
		66	LAKHIMPUR-KHERI	9500276.96
17	**FAIZABAD**	67	FAIZABAD	1601834.73
		68	AMBEDKAR NAGAR	1670013.33
		69	SULTANPUR	1498763.98
		70	BARABANKI	2824169.13
		71	AMETHI	1053466.44
18	**DEVI PATAN**	72	GONDA	3215280.76
		73	BALRAMPUR	1984266.51
		74	BAHRAICH	3245628.85
		75	SHRAVASTI	951975.26
UTTAR PRADESH				**15,45,40,175.80**



Division wise agricultural crop residue production

SAHARANPUR DIVISION



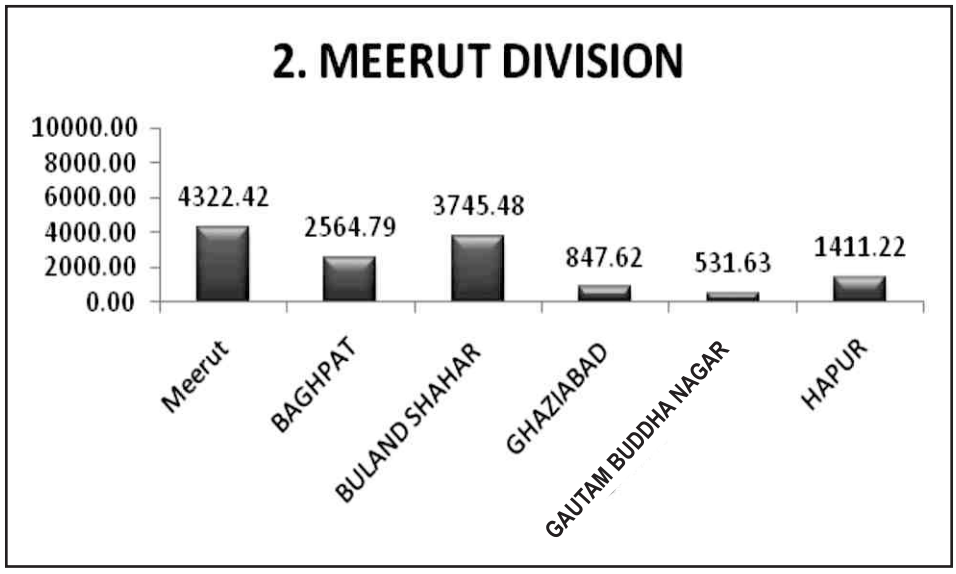
All the data is taken as "000" MT/Year

SAHARANPUR DIVISION_SAHARANPUR DISTRICT - 1													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area(Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	72546	165623	2.28	248434.5	33124.6	248434.5						529993.6
2	Wheat	112433	377213	3.36			565819.5	113163.9					678983.4
3	Bajra	0	0	0.00		0	0			0			0
4	Barley	22	235	10.68			305.5						305.5
5	Jowar	0	0	0.00		0	0			0			0
6	Linseed	0	0	0.00			0						0
7	Groundnut	3679	4216	1.15			8432		1264.8				9696.8
8	Sunflower	0	0	0.00									
9	Arhar	0	0	0.00			0						0
10	Lentil	1883	2043	1.08			3677.4						3677.4
11	Gram	5	3	0.60			3.3						3.3
12	Sugar cane	7688	7380059	959.95							2435419.47	369002.95	2804422.42
13	Maize	7261	11952	1.65			23904			3585.6			27489.6
14	Rape Seed and Mustard	1205	1182	0.98			2127.6						2127.6
15	Til (Sesame)	97	29	0.30			34.8						34.8
16	Moong	0	0	0.00			0						0
17	Urad	1248	363	0.29			399.3						399.3
Total													4057133.72

SAHARANPUR DIVISION_MUZAFFARNAGAR DISTRICT - 2													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area(Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	14419	37432	2.60	56148	7486.4	56148						119782.4
2	Wheat	83021	295970	3.57			443955	88791					532746
3	Bajra	2	4	0.00		1.2	8			1.32			10.52
4	Barley	258	450	1.74			585						585
5	Jowar	0	0	0.00		0	0			0			0
6	Linseed	0	0	0.00			0						0
7	Groundnut	0	0	0.00			0		0				0
8	Sunflower												
9	Arhar	28	18	0.64			45						45
10	Lentil	311	337	1.08			606.6						606.6
11	Gram	8	5	0.63			5.5						5.5
12	Sugar cane	110566	12698079	114.85							4190366.07	634903.95	4825270.02
13	Maize	85	140	1.65			280			42			322
14	Rape Seed and Mustard	5109	5071	0.99			9127.8						9127.8
15	Til (Sesame)	1	0	0.00			0						0
16	Moong	5	1	0.00			1.1						1.1
17	Urad	930	271	0.29			298.1						298.1
Total													5488800.04

SAHARANPUR DIVISION_SHAMLI DISTRICT - 3													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area(Hact)	Production (MT)	Productivity (Qtl/ha	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	19728	47657	2.42	71485.5	9531.4	71485.5						152502.4
2	Wheat	53363	217241	4.07			325861.5	65172.3					391033.8
3	Bajra	0	0	0.00		0	0			0			0
4	Barley	97	293	3.02			380.9						380.9
5	Jowar	0	0	0.00		0	0			0			0
6	Linseed	0	0	0.00			0						0
7	Groundnut	0	0	0.00			0		0				0
8	Sunflower												
9	Arhar	28	18	0.64			45						45
10	Lentil	29	32	1.10			57.6						57.6
11	Gram	0	0	0.00			0						0
12	Sugar cane	167212	4759080	28.46							1570496.4	237954	1808450.4
13	Maize	70	115	1.64			230			34.5			264.5
14	Rape Seed and Mustard	1341	1315	0.98			2367						2367
15	Til (Sesame)	16	5	0.31			6						6
16	Moong	0	0	0.00			0						0
17	Urad	451	131	0.29			144.1						144.1
Total													**2355251.7**

MEERUT DIVISION



All the data is taken as "000" MT/Year

MEERUT DIVISION_MEERUT DISTRICT - 4													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area(Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	17352	49950	2.88	74925	9990	74925						159840
2	Wheat	75480	308562	4.09			462843	92568.6					555411.6
3	Bajra	49	98	0.00		29.4	196			32.34			257.74
4	Barley	61	216	3.54			280.8						280.8
5	Jowar	0	0	0.00		0	0			0			0
6	Linseed	0	0	0.00			0						0
7	Groundnut	0	0	0.00			0		0				0
8	Sunflower												
9	Arhar	957	693	0.72			1732.5						1732.5
10	Lentil	477	339	0.71			610.2						610.2
11	Gram	17	10	0.00			11						11
12	Sugar cane	336695	9443739	28.05							3116433.87	472186.95	3588620.82
13	Maize	587	1423	2.42			2846			426.9			3272.9
14	Rape Seed and Mustard	6263	6699	1.07			12058.2						12058.2
15	Til (Sesame)	8	2	0.25			2.4						2.4
16	Moong	72	16	0.00			17.6						17.6
17	Urad	939	273	0.29			300.3						300.3
Total													4322416.06

MEERUT DIVISION_BAGHPAT DISTRICT - 5													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area(Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	6362	17470	2.75	26205	3494	26205						55904
2	Wheat	52596	217747	4.14			326620.5	65324.1					391944.6
3	Bajra	573	1141	0.00		342.3	2282			376.53			3000.83
4	Barley	259	167	0.64			217.1						217.1
5	Jowar	0	0	0.00		0	0			0			0
6	Linseed	0	0	0.00			0						0
7	Groundnut	0	0	0.00			0		0				0
8	Sunflower												
9	Arhar	272	197	0.72			492.5						492.5
10	Lentil	33	23	0.70			41.4						41.4
11	Gram	1	1	0.00			1.1						1.1
12	Sugar cane	118837	5538678	46.61							1827763.74	276933.9	2104697.64
13	Maize	7	17	2.43			34			5.1			39.1
14	Rape Seed and Mustard	3941	4350	1.10			7830						7830
15	Til (Sesame)	0	0	0.00			0						0
16	Moong	12	3	0.00			3.3						3.3
17	Urad	1915	558	0.29			613.8						613.8
Total													2564785.37

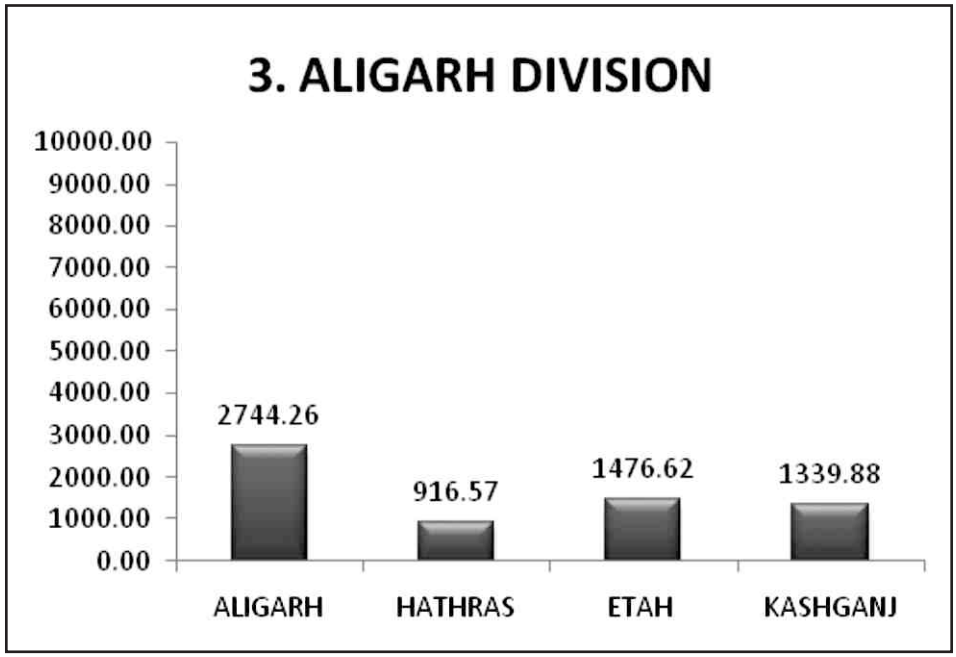
MEERUT DIVISION_BULAND SHAHAR DISTRICT - 6													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area(Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	103449	278063	2.69	417094.5	55612.6	417094.5						889801.6
2	Wheat	197838	765040	3.87			1147560	229512					1377072
3	Bajra	14610	29102	0.00		8730.6	58204			9603.66			76538.26
4	Barley	4689	20129	4.29			26167.7						26167.7
5	Jowar	21	296	14.10		59.2	503.2			148			710.4
6	Linseed	0	0	0.00			0						0
7	Groundnut	2	1	0.50			2		0.3				2.3
8	Sunflower												
9	Arhar	6882	4995	0.73			12487.5						12487.5
10	Lentil	738	524	0.71			943.2						943.2
11	Gram	22	13	0.59			14.3						14.3
12	Sugar cane	71901	3033060	42.18							1000909.8	151653	1152562.8
13	Maize	33234	81855	2.46			163710			24556.5			188266.5
14	Rape Seed and Mustard	9007	11466	1.27			20638.8						20638.8
15	Til (Sesame)	127	38	0.30			45.6						45.6
16	Moong	696	151	0.22			166.1						166.1
17	Urad	185	54	0.29			59.4						59.4
Total													3745476.46

MEERUT DIVISION_GHAZIABAD DISTRICT - 7													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area(Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	9749	25035	2.57	37552.5	5007	37552.5						80112
2	Wheat	27082	97766	3.61			146649	29329.8					175978.8
3	Bajra	24	48	2.00		14.4	96			15.84			126.24
4	Barley	0	0	0.00			0						0
5	Jowar	0	0	0.00		0	0			0			0
6	Linseed	0	0	0.00			0						0
7	Groundnut	0	0	0.00			0		0				0
8	Sunflower												
9	Arhar	268	194	0.72			485						485
10	Lentil	15	11	0.73			19.8						19.8
11	Gram	0	0	0.00			0						0
12	Sugar cane	45836	1548863	33.79							511124.79	77443.15	588567.94
13	Maize	86	209	2.43			418			62.7			480.7
14	Rape Seed and Mustard	926	1022	1.10			1839.6						1839.6
15	Til (Sesame)	0	0	0.00			0						0
16	Moong	0	0	0.00			0						0
17	Urad	45	13	0.29			14.3						14.3
Total													**847624.38**

MEERUT DIVISION_GAUTAM BUDDH NAGAR DISTRICT - 8													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area(Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	26352	68937	2.62	103405.50	13787.40	103405.50						220598.40
2	Wheat	44330	151742	3.42			227613.00	45522.60					273135.60
3	Bajra	0	0	0.00		0.00	0.00			0.00			0.00
4	Barley	719	4690	6.52			6097.00						6097.00
5	Jowar	0	0	0.00		0.00	0.00			0.00			0.00
6	Linseed	0	0	0.00			0.00						0.00
7	Groundnut	0	0	0.00			0.00		0.00				0.00
8	Sunflower												
9	Arhar	541	392	0.72			980.00						980.00
10	Lentil	4	3	0.75			5.40						5.40
11	Gram	0	0	0.00			0.00						0.00
12	Sugar cane	20412	75667	3.71							24970.11	3783.35	28753.46
13	Maize	290	703	2.42			1406.00			210.90			1616.90
14	Rape Seed and Mustard	189	209	1.11			376.20						376.20
15	Til (Sesame)	153	46	0.30			55.20						55.20
16	Moong	18	4	0.22			4.40						4.40
17	Urad	31	9	0.29			9.90						9.90
Total													**531632.46**

MEERUT DIVISION_HAPUR DISTRICT - 9													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area (Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	21191	60098	2.84	90147	12019.6	90147						192313.6
2	Wheat	41873	160792	3.84			241188	48237.6					289425.6
3	Bajra	1	2	0.00		0.6	4			0.66			5.26
4	Barley	266	2209	8.30			2871.7						2871.7
5	Jowar	0	0	0.00		0	0			0			0
6	Linseed	0	0	0.00			0						0
7	Groundnut	0	0	0.00			0		0				0
8	Sunflower												
9	Arhar	744	538	0.72			1345						1345
10	Lentil	167	118	0.71			212.4						212.4
11	Gram	0	0	0.00			0						0
12	Sugar cane	1007	2416740	2399.94							797524.2	120837	918361.2
13	Maize	746	548	0.73			1096			164.4			1260.4
14	Rape Seed and Mustard	1997	2860	1.43			5148						5148
15	Til (Sesame)	2	1	0.50			1.2						1.2
16	Moong	67	14	0.21			15.4						15.4
17	Urad	829	241	0.29			265.1						265.1
Total													**1411224.86**

ALIGARH DIVISION



All the data is taken as "000" MT/Year

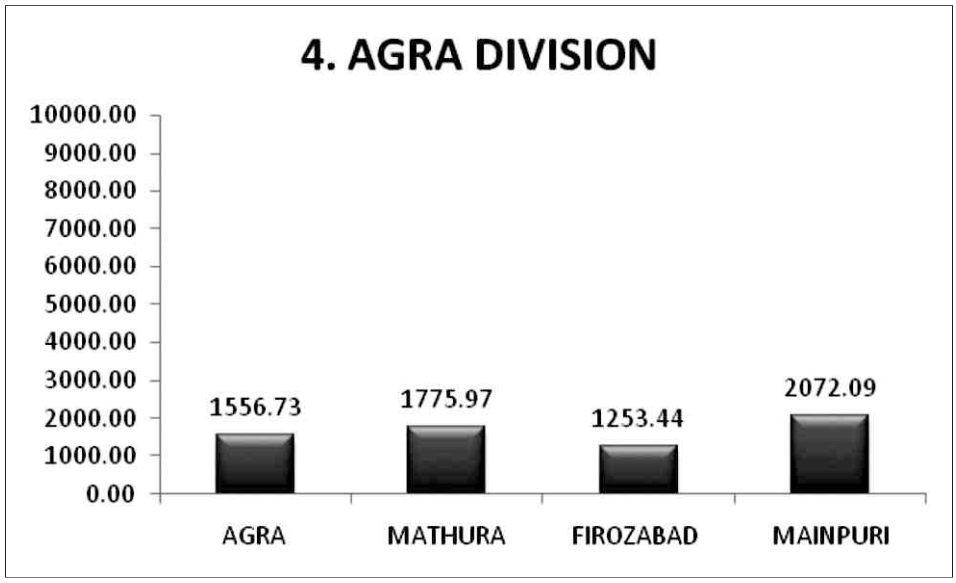
ALIGARH DIVISION_ALIGARH DISTRICT - 10													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area (Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	87723	205798	2.35	308697	41159.6	308697						658553.6
2	Wheat	216572	709923	3.28			1064884.5	212976.9					1277861.4
3	Bajra	89220	199764	2.24		59929.2	399528			65922.12			525379.32
4	Barley	5917	14428	2.44			18756.4						18756.4
5	Jowar	2724	3779	1.39		755.8	6424.3			1889.5			9069.6
6	Linseed	5	1	0.20			1.47						1.47
7	Groundnut	8	2.4	0.00			4.8		0.72				5.52
8	Sunflower	0	0	0.00			0						0
9	Arhar	6452	5084	0.79			12710						12710
10	Lentil	1719	1220	0.00			2196						2196
11	Gram	19	12	0.00			13.2						13.2
12	Sugar cane	293714	315556	1.07							104133.48	15777.8	119911.28
13	Maize	15247	36212	2.38			72424			10863.6			83287.6
14	Rape Seed and Mustard	19681	22935	1.165337127			35425.8						35425.8
15	Til (Sesame)	371	112	0.30			134.4						134.4
16	Moong	662	143	0.22			157.3						157.3
17	Urad	729	212	0.29			801.9						801.9
	Total												**2744264.79**

ALIGARH DIVISION_HATHRAS DISTRICT - 11													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area (Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	26090	51293	1.97	76939.5	10258.6	76939.5						164137.6
2	Wheat	75908	265298	3.49			397947	79589.4					477536.4
3	Bajra	42953	82813	1.93		24843.9	165626			27328.29			217798.19
4	Barley	1441	7000	4.86			9100						9100
5	Jowar	2	9	4.50		1.8	15.3			4.5			21.6
6	Linseed	0	0	0.00			0						0
7	Groundnut	28	19	0.68			38		5.7				43.7
8	Sunflower												
9	Arhar	3496	3360	0.96			8400						8400
10	Lentil	1719	1220	0.71			2196						2196
11	Gram	12	7	0.58			7.7						7.7
12	Sugar cane	5119	13483	2.63							4449.39	674.15	5123.54
13	Maize	2928	6357	2.17			12714			1907.1			14621.1
14	Rape Seed and Mustard	7610	9652	1.27			17373.6						17373.6
15	Til (Sesame)	334	101	0.30			121.2						121.2
16	Moong	206	45	0.22			49.5						49.5
17	Urad	136	40	0.29			44						44
Total													**916574.13**

ALIGARH DIVISION_ETAH DISTRICT - 12													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area (Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	29394	45414	1.55	68121	9082.8	68121						145324.8
2	Wheat	134326	389680	2.90			584520	116904					701424
3	Bajra	57315	148675	2.59		44602.5	297350			49062.75			391015.25
4	Barley	7436	33736	4.54			43856.8						43856.8
5	Jowar	37	28	0.76		5.6	47.6			14			67.2
6	Linseed	0	0	0.00			0						0
7	Groundnut	1113	751	0.67			1502		225.3				1727.3
8	Sunflower												
9	Arhar	1738	1643	0.95			4107.5						4107.5
10	Lentil	3332	2366	0.71			4258.8						4258.8
11	Gram	37	22	0.59			24.2						24.2
12	Sugar cane	220	13361	60.73							4409.13	668.05	5077.18
13	Maize	22990	63751	2.77			127502			19125.3			146627.3
14	Rape Seed and Mustard	12341	17980	1.46			32364						32364
15	Til (Sesame)	1040	315	0.30			378						378
16	Moong	363	79	0.22			86.9						86.9
17	Urad	885	258	0.29			283.8						283.8
Total													**1476623.03**

ALIGARH DIVISION_KASHGANJ DISTRICT - 13													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area (Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	17821	34163	1.92	51244.5	6832.6	51244.5						109321.6
2	Wheat	96881	298781	3.08			448171.5	89634.3					537805.8
3	Bajra	46404	112019	2.41		33605.7	224038			36966.27			294609.97
4	Barley	2122	6649	3.13			8643.7						8643.7
5	Jowar	19	4	0.21		0.8	6.8			2			9.6
6	Linseed	0	0	0.00			0						0
7	Groundnut	313	211	0.67			422		63.3				485.3
8	Sunflower												
9	Arhar	1411	1334	0.95			3335						3335
10	Lentil	1297	921	0.71			1657.8						1657.8
11	Gram	0	0	0.00			0						0
12	Sugar cane	218	397554	1823.64							131192.82	19877.7	151070.52
13	Maize	34407	88323	2.57			176646			26496.9			203142.9
14	Rape Seed and Mustard	8997	16204	1.80			29167.2						29167.2
15	Til (Sesame)	872	264	0.30			316.8						316.8
16	Moong	212	46	0.22			50.6						50.6
17	Urad	836	243	0.29			267.3						267.3
Total													1339884.09

AGRA DIVISION



All the data is taken as "000" MT/Year

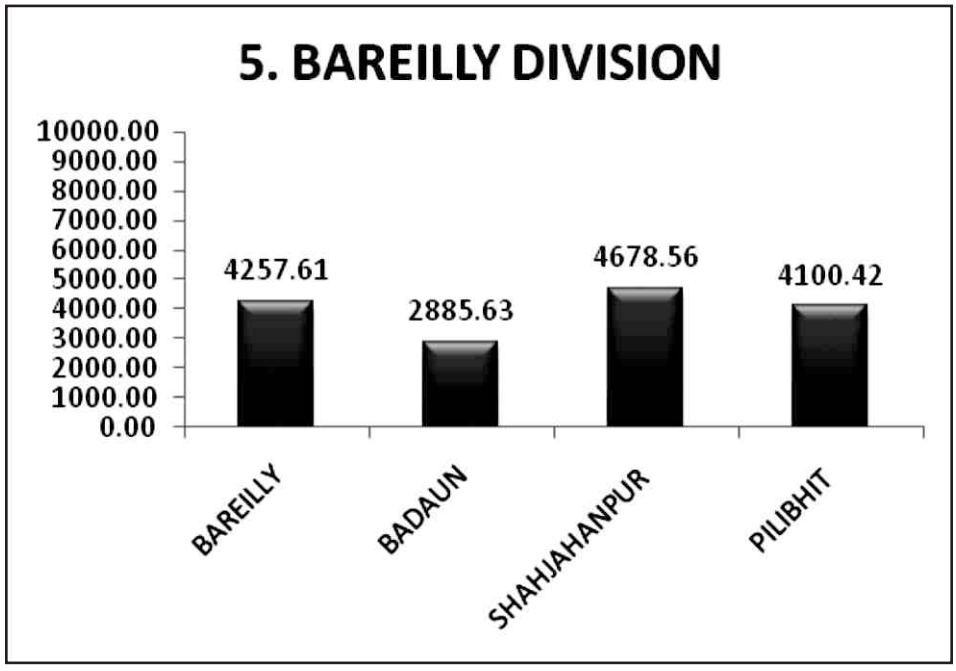
AGRA DIVISION_AGRA DISTRICT - 14													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area (Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	9401	22553	2.40	33829.5	4510.6	33829.5						72169.6
2	Wheat	120903	390033	3.23			585049.5	117009.9					702059.4
3	Bajra	129352	245947	1.90		73784.1	491894			81162.51			646840.61
4	Barley	4496	32512	7.23			42265.6						42265.6
5	Jowar	6	78	13.00		15.6	132.6			39			187.2
6	Linseed	0	0	0.00			0						0
7	Groundnut	5	8	1.60			16		2.4				18.4
8	Sunflower												
9	Arhar	484	409	0.85			1022.5						1022.5
10	Lentil	864	595	0.69			1071						1071
11	Gram	461	327	0.71			359.7						359.7
12	Sugar cane	12073	10462	0.87							3452.46	523.1	3975.56
13	Maize	47	134	2.85			268			40.2			308.2
14	Rape Seed and Mustard	38621	47270	1.22			85086						85086
15	Til (Sesame)	3378	1024	0.30			1228.8						1228.8
16	Moong	155	34	0.22			37.4						37.4
17	Urad	327	95	0.29			104.5						104.5
Total													**1556734.47**

AGRA DIVISION_MATHURA DISTRICT - 15													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area (Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	48723	108360	2.22	162540	21672	162540						346752
2	Wheat	178832	617507	3.45			926260.5	185252.1					1111512.6
3	Bajra	43472	63672	1.46		19101.6	127344			21011.76			167457.36
4	Barley	3864	14044	3.63			18257.2						18257.2
5	Jowar	23	33	1.43		6.6	56.1			16.5			79.2
6	Linseed	0	0	0.00			0						0
7	Groundnut	0	0	0.00			0		0				0
8	Sunflower												
9	Arhar	2049	2098	1.02			5245						5245
10	Lentil	47	33	0.70			59.4						59.4
11	Gram	19	13	0.68			14.3						14.3
12	Sugar cane	224	34654	154.71							11435.82	1732.7	13168.52
13	Maize	156	445	2.85			890			133.5			1023.5
14	Rape Seed and Mustard	39766	62313	1.57			112163.4						112163.4
15	Til (Sesame)	529	160	0.30			192						192
16	Moong	26	5	0.19			5.5						5.5
17	Urad	130	38	0.29			41.8						41.8
Total													1775971.78

AGRA DIVISION_FIROZABAD DISTRICT - 16													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area (Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	23517	56370	2.40	84555	11274	84555						180384
2	Wheat	98225	322866	3.29			484299	96859.8					581158.8
3	Bajra	70888	148693	2.10		44607.9	297386			49068.69			391062.59
4	Barley	6662	22689	3.41			29495.7						29495.7
5	Jowar	27	91	3.37		18.2	154.7			45.5			218.4
6	Linseed	0	0	0.00			0						0
7	Groundnut	192	303	0.00			606		90.9				696.9
8	Sunflower												
9	Arhar	979	475	0.49			1187.5						1187.5
10	Lentil	22	15	0.68			27						27
11	Gram	465	330	0.71			363						363
12	Sugar cane	742	5558	7.49							1834.14	277.9	2112.04
13	Maize	7377	19866	2.69			39732			5959.8			45691.8
14	Rape Seed and Mustard	7968	11125	1.40			20025						20025
15	Til (Sesame)	2333	707	0.30			848.4						848.4
16	Moong	110	24	0.22			26.4						26.4
17	Urad	451	131	0.29			144.1						144.1
Total													1253441.63

AGRA DIVISION_MAINPURI DISTRICT - 17													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area (Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	72913	192048	2.63	288072	38409.6	288072						614553.6
2	Wheat	161770	539018	3.33			808527	161705.4					970232.4
3	Bajra	17966	45124	2.51		13537.2	90248			14890.92			118676.12
4	Barley	2685	7267	2.71			9447.1						9447.1
5	Jowar	218	462	2.12		92.4	785.4			231			1108.8
6	Linseed	0	0	0.00			0						0
7	Groundnut	2763	4357	0.00			8714		1307.1				10021.1
8	Sunflower	326	524				1572						1572
9	Arhar	710	601	0.85			1502.5						1502.5
10	Lentil	118	81	0.69			145.8						145.8
11	Gram	942	669	0.71			735.9						735.9
12	Sugar cane	119	16580	139.33							5471.4	829	6300.4
13	Maize	47924	137782	2.88			275564			41334.6			316898.6
14	Rape Seed and Mustard	6890	11493	1.67			20687.4						20687.4
15	Til (Sesame)	214	65	0.30			78						78
16	Moong	77	17	0.22			18.7						18.7
17	Urad	335	98	0.29			107.8						107.8
Total													2072086.22

BAREILLY DIVISION



All the data is taken as "000" MT/Year

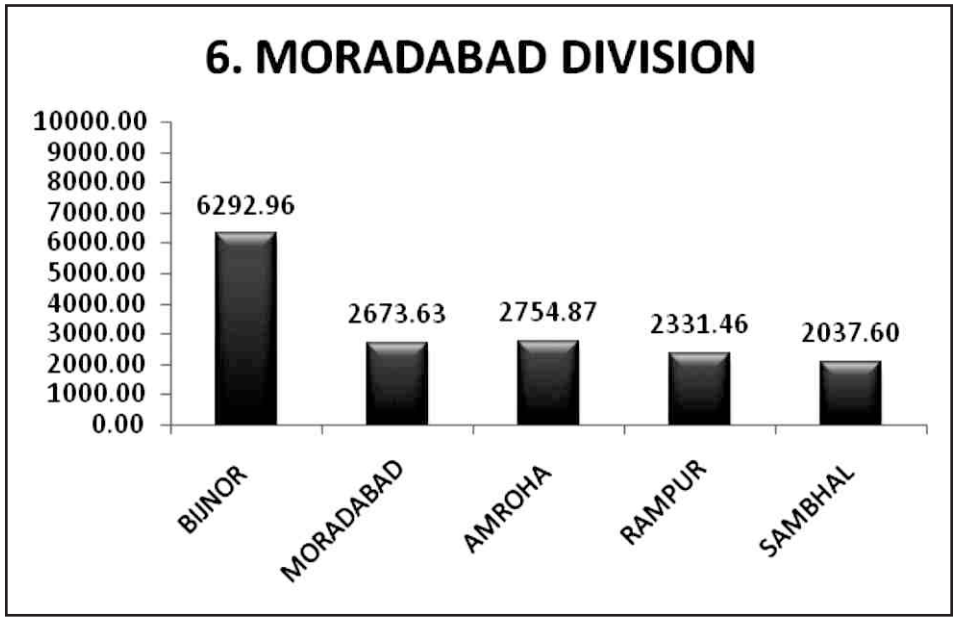
BAREILLY DIVISION_BAREILLY DISTRICT - 18													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area (Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	158631	326353	2.06	489529.5	65270.6	489529.5						1044329.6
2	Wheat	209611	614160	2.93			921240	184248					1105488
3	Bajra	8604	18043	2.10		5412.9	36086			5954.19			47453.09
4	Barley	40	58	1.45			75.4						75.4
5	Jowar	32	147	4.59		29.4	249.9			73.5			352.8
6	Linseed	0	0	0.00			0						0
7	Groundnut	434	1071	0.04			2142		321.3				2463.3
8	Sunflower	12	19	1.58			57						57
9	Arhar	5	3	0.60			7.5						7.5
10	Lentil	4507	3574	0.00			6433.2						6433.2
11	Gram	4	2	0.00			2.2						2.2
12	Sugar cane	1440	5309850	3687.40							1752250.5	265492.5	2017743
13	Maize	174	300	1.72			600			90			690
14	Rape Seed and Mustard	12129	10698	0.882018303			21832.2						21832.2
15	Til (Sesame)	5403	600	0.11			720						720
16	Moong	16	3	0.19			3.3						3.3
17	Urad	9054	2943	0.33			9959.4						9959.4
Total													4257609.99

BAREILLY DIVISION_BADAUN DISTRICT - 19													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area (Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	66610	123029	1.85	184543.5	24605.8	184543.5						393692.8
2	Wheat	251324	711498	2.83			1067247	213449.4					1280696.4
3	Bajra	120479	201079	1.67		60323.7	402158			66356.07			528837.77
4	Barley	414	2615	6.32			3399.5						3399.5
5	Jowar	110	177	1.61		35.4	300.9			88.5			424.8
6	Linseed	0	0	0.00			0						0
7	Groundnut	243	248	0.00			496		74.4				570.4
8	Sunflower	4	6				18						18
9	Arhar	461	302	0.66			755						755
10	Lentil	4930	5053	1.02			9095.4						9095.4
11	Gram	5	3	0.60			3.3						3.3
12	Sugar cane	84849	1447291	17.06							477606.03	72364.55	549970.58
13	Maize	7614	13781	1.81			27562			4134.3			31696.3
14	Rape Seed and Mustard	22122	33993	1.54			61187.4						61187.4
15	Til (Sesame)	2834	549	0.19			658.8						658.8
16	Moong	36	8	0.22			8.8						8.8
17	Urad	34529	22375	0.65			24612.5						24612.5
Total													**2885627.75**

BAREILLY DIVISION_SHAHJAHANPUR DISTRICT - 20													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area (Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	155993	473270	3.03	709905	94654	709905						1514464
2	Wheat	253360	889040	3.51			1333560	266712					1600272
3	Bajra	2926	4497	1.54		1349.1	8994			1484.01			11827.11
4	Barley	226	541	2.39			703.3						703.3
5	Jowar	636	1086	1.71		217.2	1846.2			543			2606.4
6	Linseed	0	0	0.00			0						0
7	Groundnut	3596	4168	0.00			8336		1250.4				9586.4
8	Sunflower	9	15				45						45
9	Arhar	100	66	0.66			165						165
10	Lentil	6203	4758	0.77			8564.4						8564.4
11	Gram	128	77	0.60			84.7						84.7
12	Sugar cane	21811	3975486	182.27							1311910.38	198774.3	1510684.68
13	Maize	1076	1185	1.10			2370			355.5			2725.5
14	Rape Seed and Mustard	8213	7125	0.87			12825						12825
15	Til (Sesame)	14953	1286	0.09			1543.2						1543.2
16	Moong	97	21	0.22			23.1						23.1
17	Urad	3390	2214	0.65			2435.4						2435.4
Total													4678555.19

BAREILLY DIVISION_PILIBHIT DISTRICT - 21													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area (Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	145070	415199	2.86	622798.5	83039.8	622798.5						1328636.8
2	Wheat	154256	598051	3.88			897076.5	179415.3					1076491.8
3	Bajra	0	0	0.00		0	0			0			0
4	Barley	3	10	3.33			13						13
5	Jowar	0	0	0.00		0	0			0			0
6	Linseed	0	0	0.00			0						0
7	Groundnut	642	824	0.00			1648		247.2				1895.2
8	Sunflower	6	10				30						30
9	Arhar	4	3	0.75			7.5						7.5
10	Lentil	1854	1590	0.86			2862						2862
11	Gram	0	0	0.00			0						0
12	Sugar cane	59226	4397013	74.24							1451014.29	219850.65	1670864.94
13	Maize	1120	1929	1.72			3858			578.7			4436.7
14	Rape Seed and Mustard	9974	8289	0.83			14920.2						14920.2
15	Til (Sesame)	977	189	0.19			226.8						226.8
16	Moong	2	1	0.50			1.1						1.1
17	Urad	66	33	0.50			36.3						36.3
Total													4100422.34

MORADABAD DIVISION



All the data is taken as "000" MT/Year

MORADABAD DIVISION_BIJNOR DISTRICT - 22													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area (Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	51352	132911	2.59	199366.5	26582.2	199366.5						425315.2
2	Wheat	99699	309067	3.10			463600.5	92720.1					556320.6
3	Bajra	0	0	0.00		0	0			0			0
4	Barley	3	10	3.33			13						13
5	Jowar	0	0	0.00		0	0			0			0
6	Linseed	0	0	0.00			0						0
7	Groundnut	806	974	0.00			1948		292.2				2240.2
8	Sunflower	0	0				0						0
9	Arhar	8	5	0.63			12.5						12.5
10	Lentil	1041	774	0.74			1393.2						1393.2
11	Gram	17	7	0.00			7.7						7.7
12	Sugar cane	234418	13951037	59.51							4603842.21	697551.85	5301394.06
13	Maize	3	6	2.00			12			1.8			13.8
14	Rape Seed and Mustard	2349	2757	1.17			4962.6						4962.6
15	Til (Sesame)	195	59	0.30			70.8						70.8
16	Moong	6	1	0.17			1.1						1.1
17	Urad	1603	1105	0.69			1215.5						1215.5
Total													6292960.26

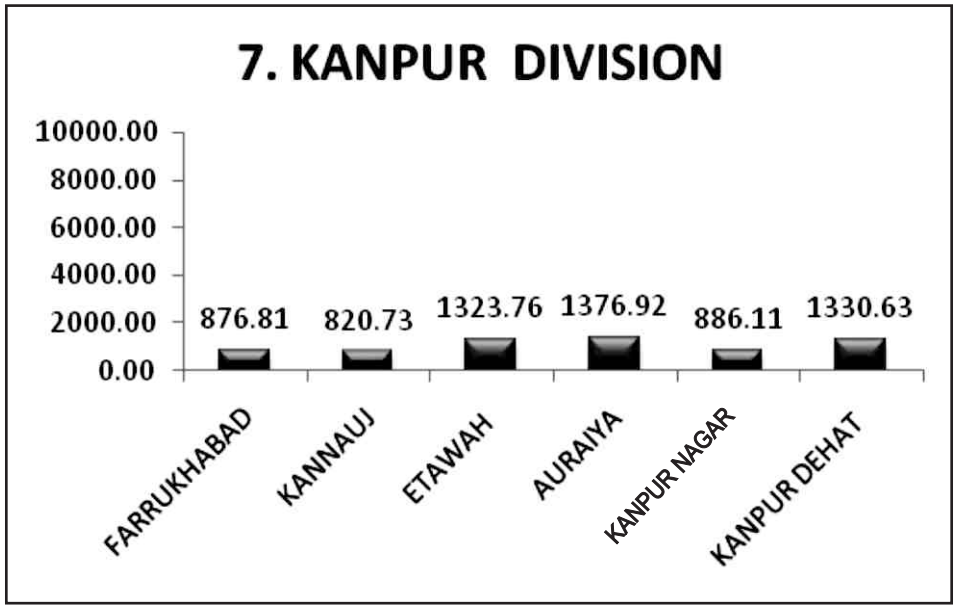
MORADABAD DIVISION_MORADABAD DISTRICT - 23													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area (Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	94677	220194	2.33	330291	44038.8	330291						704620.8
2	Wheat	121759	375560	3.08			563340	112668					676008
3	Bajra	3157	5818	0.00		1745.4	11636			1919.94			15301.34
4	Barley	11	19	1.73			24.7						24.7
5	Jowar	81	33	0.00		6.6	56.1			16.5			79.2
6	Linseed	0	0	0.00			0						0
7	Groundnut	0	0	0.00			0		0				0
8	Sunflower	0	0				0						0
9	Arhar	582	384	0.66			960						960
10	Lentil	1150	855	0.74			1539						1539
11	Gram	48	21	0.00			23.1						23.1
12	Sugar cane	203202	3332187	16.40							1099621.71	166609.35	1266231.06
13	Maize	88	187	2.13			374			56.1			430.1
14	Rape Seed and Mustard	2534	2562	1.01			4611.6						4611.6
15	Til (Sesame)	75	23	0.31			27.6						27.6
16	Moong	18	4	0.22			4.4						4.4
17	Urad	5574	3428	0.61			3770.8						3770.8
Total													**2673631.7**

MORADABAD DIVISION_AMROHA DISTRICT - 24													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area (Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	23743	53538	2.25	80307	10707.6	80307						171321.6
2	Wheat	92461	273869	2.96			410803.5	82160.7					492964.2
3	Bajra	4074	5247	1.29		1574.1	10494			1731.51			13799.61
4	Barley	16	369	23.06			479.7						479.7
5	Jowar	0	0	0.00		0	0			0			0
6	Linseed	0	0	0.00			0						0
7	Groundnut	0	0	0.00			0		0				0
8	Sunflower	0	0				0						0
9	Arhar	333	219	0.66			547.5						547.5
10	Lentil	67	50	0.75			90						90
11	Gram	0	0	0.00			0						0
12	Sugar cane	51649	5419671	104.93							1788491.43	270983.55	2059474.98
13	Maize	1410	2741	1.94			5482			822.3			6304.3
14	Rape Seed and Mustard	3142	4217	1.34			7590.6						7590.6
15	Til (Sesame)	94	28	0.30			33.6						33.6
16	Moong	7	2	0.29			2.2						2.2
17	Urad	3138	2052	0.65			2257.2						2257.2
Total													2754865.49

MORADABAD DIVISION_RAMPUR DISTRICT - 25													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area (Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	129975	277327	2.13	415990.5	55465.4	415990.5						887446.4
2	Wheat	133654	457498	3.42			686247	137249.4					823496.4
3	Bajra	1626	1777	1.09		533.1	3554			586.41			4673.51
4	Barley	16	369	23.06			479.7						479.7
5	Jowar	835	1299	0.00		259.8	2208.3			649.5			3117.6
6	Linseed	0	0	0.00			0						0
7	Groundnut	0	0	0.00			0		0				0
8	Sunflower	8	11				33						33
9	Arhar	17	11	0.65			27.5						27.5
10	Lentil	754	771	1.02			1387.8						1387.8
11	Gram	0	0	0.00			0						0
12	Sugar cane	76299	1584554	20.77							522902.82	79227.7	602130.52
13	Maize	43	92	2.14			184			27.6			211.6
14	Rape Seed and Mustard	3222	2716	0.84			4888.8						4888.8
15	Til (Sesame)	7	2	0.29			2.4						2.4
16	Moong	5	1	0.20			1.1						1.1
17	Urad	4729	3244	0.69			3568.4						3568.4
Total													**2331464.73**

MORADABAD DIVISION_SAMBHAL DISTRICT - 26													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area (Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	34112	78492	2.30	117738	15698.4	117738						251174.4
2	Wheat	135993	417499	3.07			626248.5	125249.7					751498.2
3	Bajra	71790	103449	1.44		31034.7	206898			34138.17			272070.87
4	Barley	669	2295	3.43			2983.5						2983.5
5	Jowar	172	170	0.99		34	289			85			408
6	Linseed	0	0	0.00			0						0
7	Groundnut	14	17	1.21			34		5.1				39.1
8	Sunflower	0	0	0.00			0						0
9	Arhar	104	69	0.66			172.5						172.5
10	Lentil	1069	794	0.74			1429.2						1429.2
11	Gram	0	0	0.00			0						0
12	Sugar cane	25080	1836054	73.21							605897.82	91802.7	697700.52
13	Maize	3917	8602	2.20			17204			2580.6			19784.6
14	Rape Seed and Mustard	11856	15053	1.27			27095.4						27095.4
15	Til (Sesame)	1636	496	0.30			595.2						595.2
16	Moong	185	40	0.22			44						44
17	Urad	15713	11455	0.73			12600.5						12600.5
Total													**2037595.99**

KANPUR DIVISION



All the data is taken as "000" MT/Year

KANPUR DIVISION_FARRUKHABAD DISTRICT - 27													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area (Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	11049	24816	2.25	37224	4963.2	37224						79411.2
2	Wheat	72690	230500	3.17			345750	69150					414900
3	Bajra	4196	6681	1.59		2004.3	13362			2204.73			17571.03
4	Barley	1029	3563	3.46			4631.9						4631.9
5	Jowar	714	1254	1.76		250.8	2131.8			627			3009.6
6	Linseed	0	0	0.00			0						0
7	Groundnut	786	531	0.68			1062		159.3				1221.3
8	Sunflower	0	0	0.00			0						0
9	Arhar	2392	995	0.42			2487.5						2487.5
10	Lentil	2053	1494	0.73			2689.2						2689.2
11	Gram	617	571	0.00			628.1						628.1
12	Sugar cane	384444	466517	1.21							153950.61	23325.85	177276.46
13	Maize	32828	68840	2.10			137680			20652			158332
14	Rape Seed and Mustard	7302	7828	1.07			14090.4						14090.4
15	Til (Sesame)	3029	182	0.06			218.4						218.4
16	Moong	57	12	0.21			13.2						13.2
17	Urad	851	296	0.35			325.6						325.6
Total													876805.89

KANPUR DIVISION_KANNAUJ/ DISTRICT - 28													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area (Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	30499	71703	2.35	107554.5	14340.6	107554.5						229449.6
2	Wheat	70564	229316	3.25			343974	68794.8					412768.8
3	Bajra	789	1185	1.50		355.5	2370			391.05			3116.55
4	Barley	851	2855	3.35			3711.5						3711.5
5	Jowar	240	606	2.53		121.2	1030.2			303			1454.4
6	Linseed	0	0	0.00			0						0
7	Groundnut	1124	759	0.68			1518		227.7				1745.7
8	Sunflower	404	650	0.00			1950						1950
9	Arhar	814	339	0.42			847.5						847.5
10	Lentil	108	79	0.73			142.2						142.2
11	Gram	719	666	0.00			732.6						732.6
12	Sugar cane	7710	8906	1.16							2938.98	445.3	3384.28
13	Maize	35097	64368	1.83			128736			19310.4			148046.4
14	Rape Seed and Mustard	5508	7318	1.33			13172.4						13172.4
15	Til (Sesame)	1420	85	0.06			102						102
16	Moong	68	15	0.22			16.5						16.5
17	Urad	238	83	0.35			91.3						91.3
Total													**820731.73**

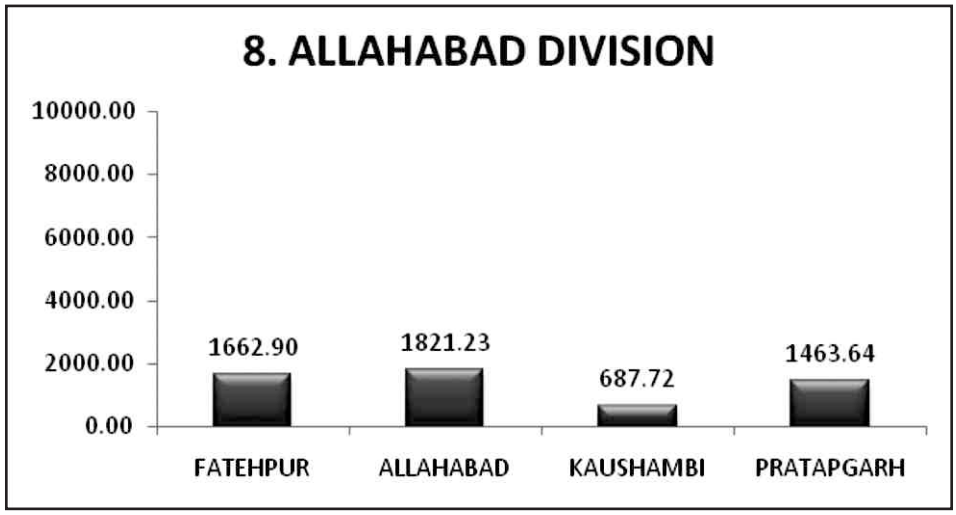
KANPUR DIVISION_ETAWAH DISTRICT - 29													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area (Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	53707	132441	2.47	198661.5	26488.2	198661.5						423811.2
2	Wheat	97645	324767	3.33			487150.5	97430.1					584580.6
3	Bajra	39335	90880	2.31		27264	181760			29990.4			239014.4
4	Barley	1061	1797	1.69			2336.1						2336.1
5	Jowar	217	140	0.65		28	238			70			336
6	Linseed	0	0	0.00			0						0
7	Groundnut	90	61	0.68			122		18.3				140.3
8	Sunflower	24	38	0.00			114						114
9	Arhar	1491	620	0.42			1550						1550
10	Lentil	0	0	0.00			0						0
11	Gram	967	896	0.00			985.6						985.6
12	Sugar cane	154	13187	85.63							4351.71	659.35	5011.06
13	Maize	4816	12430	2.58			24860			3729			28589
14	Rape Seed and Mustard	14509	20465	1.41			36837						36837
15	Til (Sesame)	636	38	0.06			45.6						45.6
16	Moong	110	24	0.22			26.4						26.4
17	Urad	1005	350	0.35			385						385
Total													1323762.26

KANPUR DIVISION_AURAIYA DISTRICT - 30													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area (Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	53479	150811	2.82	226216.5	30162.2	226216.5						482595.2
2	Wheat	108461	334602	3.08			501903	100380.6					602283.6
3	Bajra	31981	73291	2.29		21987.3	146582			24186.03			192755.33
4	Barley	1913	5248	2.74			6822.4						6822.4
5	Jowar	440	1051	2.39		210.2	1786.7			525.5			2522.4
6	Linseed	0	0	0.00			0						0
7	Groundnut	5	3	0.60			6		0.9				6.9
8	Sunflower	0	0	0.00			0						0
9	Arhar	1950	811	0.42			2027.5						2027.5
10	Lentil	43	31	0.00			55.8						55.8
11	Gram	3878	4636	0.00			5099.6						5099.6
12	Sugar cane	228	29092	127.60							9600.36	1454.6	11054.96
13	Maize	6468	17017	2.63			34034			5105.1			39139.1
14	Rape Seed and Mustard	13497	17790	1.32			32022						32022
15	Til (Sesame)	1717	103	0.06			123.6						123.6
16	Moong	91	20	0.22			22						22
17	Urad	1022	355	0.35			390.5						390.5
Total													**1376920.89**

KANPUR DIVISION_KANPUR NAGAR DISTRICT - 31													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area (Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	31182	70908	2.27	106362	14181.6	106362						226905.6
2	Wheat	101576	215746	2.12			323619	64723.8					388342.8
3	Bajra	1205	1271	1.05		381.3	2542			419.43			3342.73
4	Barley	5486	5946	1.08			7729.8						7729.8
5	Jowar	10913	11874	1.09		2374.8	20185.8			5937			28497.6
6	Linseed	0	0	0.00			0						0
7	Groundnut	184	124	0.67			248		37.2				285.2
8	Sunflower	136	219	0.00			657						657
9	Arhar	4866	2709	0.56			6772.5						6772.5
10	Lentil	750	546	0.00			982.8						982.8
11	Gram	15460	14078	0.00			15485.8						15485.8
12	Sugar cane	503	138201	274.75							45606.33	6910.05	52516.38
13	Maize	18709	52610	2.81			105220			15783			121003
14	Rape Seed and Mustard	14323	16515	1.15			29727						29727
15	Til (Sesame)	2668	160	0.06			192						192
16	Moong	333	72	0.22			79.2						79.2
17	Urad	7228	3260	0.45			3586						3586
Total												886105.41	

KANPUR DIVISION_KANPUR DEHAT DISTRICT - 32													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area (Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	38397	101176	2.63	151764	20235.2	151764						323763.2
2	Wheat	123990	373499	3.01			560248.5	112049.7					672298.2
3	Bajra	22695	37642	1.66		11292.6	75284			12421.86			98998.46
4	Barley	4859	13686	2.82			17791.8						17791.8
5	Jowar	8698	17901	2.06		3580.2	30431.7			8950.5			42962.4
6	Linseed	0	0	0.00			0						0
7	Groundnut	5	3	0.60			6		0.9				6.9
8	Sunflower	23	37	0.00			111						111
9	Arhar	7337	3053	0.42			7632.5						7632.5
10	Lentil	864	629	0.00			1132.2						1132.2
11	Gram	17441	15970	0.00			17567						17567
12	Sugar cane	2746	120127	43.75							39641.91	6006.35	45648.26
13	Maize	12082	24841	2.06			49682			7452.3			57134.3
14	Rape Seed and Mustard	24499	24625	1.01			44325						44325
15	Til (Sesame)	3296	198	0.06			237.6						237.6
16	Moong	197	43	0.22			47.3						47.3
17	Urad	3526	885	0.25			973.5						973.5
Total													1330629.62

ALLAHABAD DIVISION



All the data is taken as "000" MT/Year

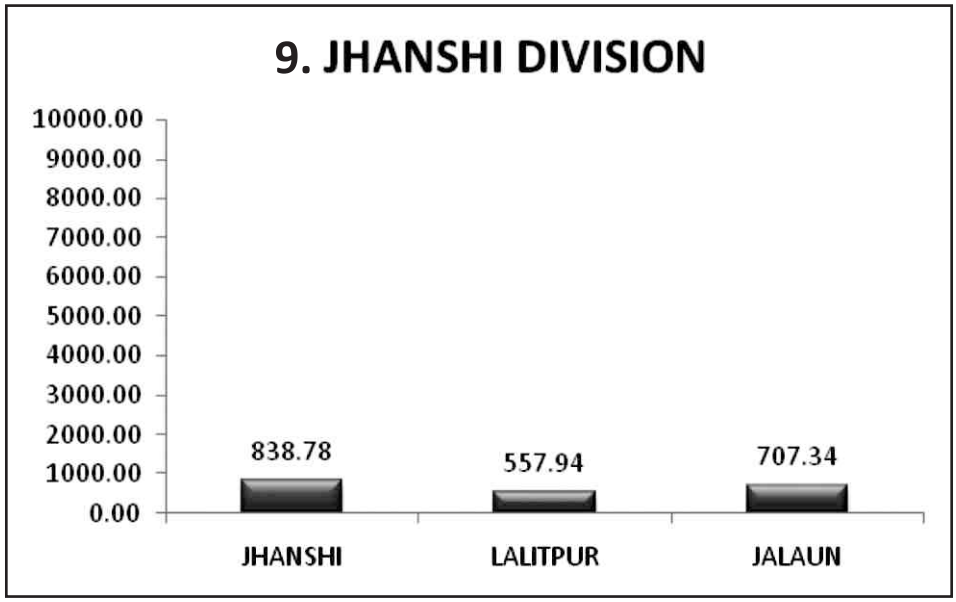
ALLAHABAD DIVISION_FATEHPUR DISTRICT - 33													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area (Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	81949	167750	2.05	251625	33550	251625						536800
2	Wheat	185392	460640	2.48			690960	138192					829152
3	Bajra	5472	4479	0.82		1343.7	8958			1478.07			11779.77
4	Barley	3063	10244	3.34			13317.2						13317.2
5	Jowar	5450	8079	1.48		1615.8	13734.3			4039.5			19389.6
6	Linseed	0	0	0.00			0						0
7	Groundnut	29	20	0.69			40		6				46
8	Sunflower	23	37	0.00			111						111
9	Arhar	15024	8784	0.58			21960						21960
10	Lentil	370	182	0.00			327.6						327.6
11	Gram	33908	19432	0.00			21375.2						21375.2
12	Sugar cane	13418	486318	36.24							160484.94	24315.9	184800.84
13	Maize	517	376	0.73			752			112.8			864.8
14	Rape Seed and Mustard	16853	10124	0.60			18223.2						18223.2
15	Til (Sesame)	19075	1888	0.10			2265.6						2265.6
16	Moong	953	207	0.22			227.7						227.7
17	Urad	6231	2056	0.33			2261.6						2261.6
	Total												1662902.11

ALLAHABAD DIVISION_ALLAHABAD DISTRICT - 34													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area(Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	146462	268465	1.83	402697.5	53693	402697.5						859088
2	Wheat	234879	449089	1.91			673633.5	134726.7					808360.2
3	Bajra	28818	26017	0.90		7805.1	52034			8585.61			68424.71
4	Barley	905	16154	17.85			21000.2						21000.2
5	Jowar	3221	2259	0.70		451.8	3840.3			1129.5			5421.6
6	Linseed	0	0	0.00			0						0
7	Groundnut	0	0	0.00			0		0				0
8	Sunflower	0	0	0.00			0						0
9	Arhar	14901	10782	0.72			26955						26955
10	Lentil	4305	1485	0.00			2673						2673
11	Gram	12187	6630	0.00			7293						7293
12	Sugar cane	7255	50542	6.97							16678.86	2527.1	19205.96
13	Maize	151	110	0.73			220			33			253
14	Rape Seed and Mustard	1465	932	0.64			1677.6						1677.6
15	Til (Sesame)	493	51	0.10			61.2						61.2
16	Moong	73	16	0.22			17.6						17.6
17	Urad	727	311	0.43			799.7						799.7
Total													**1821230.77**

ALLAHABAD DIVISION_KAUSHAMBI DISTRICT - 35													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area(Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	46080	97644	2.12	146466	19528.8	146466						312460.8
2	Wheat	74280	161633	2.18			242449.5	48489.9					290939.4
3	Bajra	9535	8687	0.91		2606.1	17374			2866.71			22846.81
4	Barley	754	3986	5.29			5181.8						5181.8
5	Jowar	4030	4926	1.22		985.2	8374.2			2463			11822.4
6	Linseed	0	0	0.00			0						0
7	Groundnut	23	16	0.70			32		4.8				36.8
8	Sunflower	1	2	0.00			6						6
9	Arhar	9227	7180	0.78			17950						17950
10	Lentil	35	13	0.00			23.4						23.4
11	Gram	7067	4787	0.00			5265.7						5265.7
12	Sugar cane	754	44442	58.94							14665.86	2222.1	16887.96
13	Maize	144	105	0.73			210			31.5			241.5
14	Rape Seed and Mustard	1902	1502	0.79			2703.6						2703.6
15	Til (Sesame)	1616	255	0.16			306						306
16	Moong	27	6	0.22			6.6						6.6
17	Urad	949	406	0.43			1043.9						1043.9
	Total												687722.67

ALLAHABAD DIVISION_PRATAPGARH DISTRICT - 36													
CROP RESIDUE ANALYSIS													
Sr. No.	**Crop**	**Area(Hact)**	**Production (MT)**	**Productivity (Qtl/ha)**	**Straw**	**Husk**	**Stalk**	**Pod**	**Shell**	**Cob**	**Bagasses**	**Top and leaves**	**Total Residue (MT)**
1	**Rice**	124700	224335	1.80	336502.5	44867	336502.5						717872
2	**Wheat**	169728	371365	2.19			557047.5	111409.5					668457
3	**Bajra**	9279	6676	0.72		2002.8	13352			2203.08			17557.88
4	**Barley**	720	2487	3.45			3233.1						3233.1
5	**Jowar**	3013	3454	1.15		690.8	5871.8			1727			8289.6
6	**Linseed**	0	0	0.00			0						0
7	**Groundnut**	0	0	0.00			0		0				0
8	**Sunflower**	0	0	0.00			0						0
9	**Arhar**	5071	5295	1.04			13237.5						13237.5
10	**Lentil**	154	56	0.00			100.8						100.8
11	**Gram**	2862	2353	0.00			2588.3						2588.3
12	**Sugar cane**	663	56575	85.33							18669.75	2828.75	21498.5
13	**Maize**	486	354	0.73			708			106.2			814.2
14	**Rape Seed and Mustard**	1907	1214	0.636601993			3432.6						3432.6
15	**Til (Sesame)**	512	53	0.10			63.6						63.6
16	**Moong**	310	67	0.22			73.7						73.7
17	**Urad**	5835	3081	0.53			6418.5						6418.5
	Total												**1463637.28**

JHANSI DIVISION



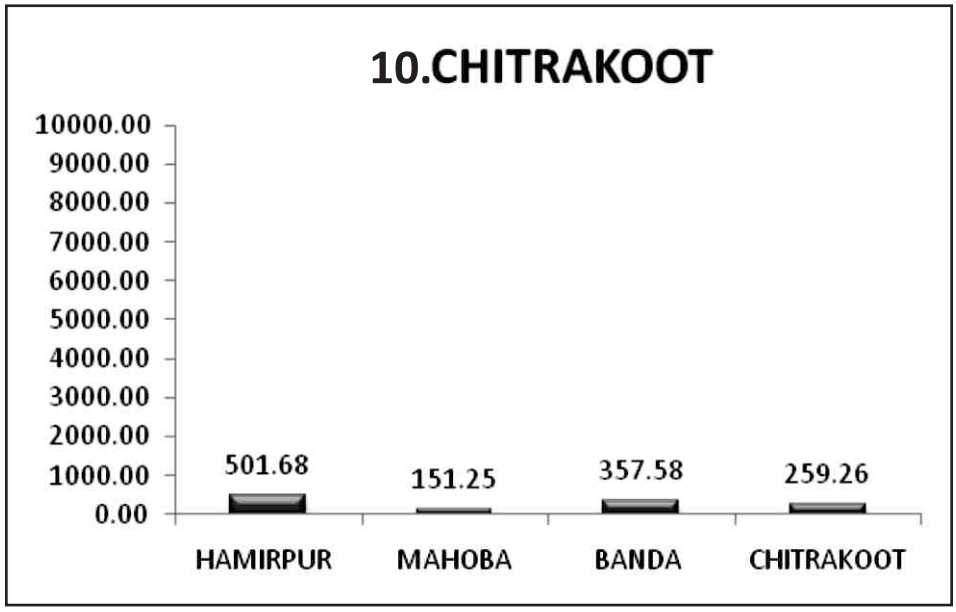
All the data is taken as "000" MT/Year

BUNDELKHAND REGION_JHANSHI DIVISION_JHANSI DISTRICT - 37													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area(Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	9223	16463	1.78	24694.50	3292.60	24694.50						52681.60
2	Wheat	159541	337585	2.12			506377.50	101275.50					607653.00
3	Bajra	19	17	0.89		5.10	34.00			5.61			44.71
4	Barley	4994	21085	4.22			27410.50						27410.50
5	Jowar	180	3108	17.27		621.60	5283.60			1554.00			7459.20
6	Linseed	173	33	0.00			48.51						48.51
7	Groundnut	26641	12521	0.47			25042.00		3756.30				28798.30
8	Sunflower	74	119		357.00								357.00
9	Arhar	2986	389	0.13			972.50						972.50
10	Lentil	7063	3701	0.52			6661.80						6661.80
11	Gram	19914	12324	0.62			13556.40						13556.40
12	Sugar cane	9516	5267	0.55							1738.11	263.35	2001.46
13	Maize	1125	990	0.88			1980.00			297.00			2277.00
14	Rape Seed and Mustard	6850	2734	0.40			4921.20						4921.20
15	Til (Sesame)	127543	58032	0.45			69638.40						69638.40
16	Moong	5339	902	0.17			992.20						992.20
17	Urad	66104	12097	0.18			13306.70						13306.70
Total													**838780.48**

BUNDELKHAND REGION_JHANSI DIVISION_LALITPUR DISTRICT - 38													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area(Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	1068	677	0.63	1015.50	135.40	1015.50						2166.40
2	Wheat	141798	246445	1.74			369667.50	73933.50					443601.00
3	Bajra	0	0	0.00		0.00	0.00			0.00			0.00
4	Barley	7276	23461	3.22			30499.30						30499.30
5	Jowar	53	517	9.75		103.40	878.90			258.50			1240.80
6	Linseed	1	0	0.00			0.00						0.00
7	Groundnut	11865	5992	0.51			11984.00		1797.60				13781.60
8	Sunflower	116	187		561.00								561.00
9	Arhar	0	0	0.00			0.00						0.00
10	Lentil	10934	7020	0.64			12636.00						12636.00
11	Gram	3589	2659	0.74			2924.90						2924.90
12	Sugar cane	153	1308	8.55							431.64	65.40	497.04
13	Maize	16045	11007	0.69			22014.00			3302.10			25316.10
14	Rape Seed and Mustard	2215	888	0.40			1598.40						1598.40
15	Til (Sesame)	7161	931	0.13			1117.20						1117.20
16	Moong	4982	528	0.11			580.80						580.80
17	Urad	180311	19474	0.11			21421.40						21421.40
Total													**557941.94**

BUNDELKHAND REGION_JHANSI DIVISION_JALAUN DISTRICT - 39													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area(Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	1560	2800	1.79	4200.00	560.00	4200.00						8960.00
2	Wheat	158550	298118	1.88			447177.00	89435.40					536612.40
3	Bajra	13204	11659	0.88		3497.70	23318.00			3847.47			30663.17
4	Barley	8525	16581	1.94			21555.30						21555.30
5	Jowar	4126	7175	1.74		1435.00	12197.50			3587.50			17220.00
6	Linseed	228	44	0.00			64.68						64.68
7	Groundnut	3	1	0.33			2.00		0.30				2.30
8	Sunflower	0	0		0.00								0.00
9	Arhar	5247	944	0.18			2360.00						2360.00
10	Lentil	17886	11519	0.64			20734.20						20734.20
11	Gram	37078	15559	0.42			17114.90						17114.90
12	Sugar cane	38	49402	1300.05							16302.66	2470.10	18772.76
13	Maize	4	3	0.75			6.00			0.90			6.90
14	Rape Seed and Mustard	10962	5174	0.47			9313.20						9313.20
15	Til (Sesame)	73935	17153	0.23			20583.60						20583.60
16	Moong	1283	150	0.12			165.00						165.00
17	Urad	10993	2924	0.27			3216.40						3216.40
Total													**707344.81**

CHITRAKOOT DIVISION



All the data is taken as "000" MT/Year

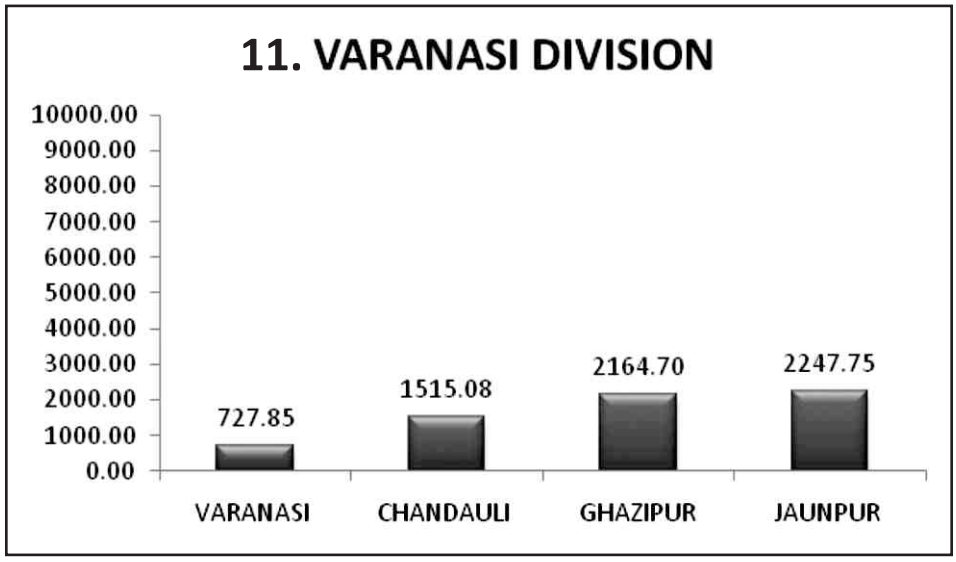
BUNDELKHAND REGION_CHITRAKOOT DHAM DIVISION_HAMIRPUR DISTRICT - 40													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area(Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	72	83	1.15	124.50	16.60	124.50						265.60
2	Wheat	97490	170850	1.75			256275.00	51255.00					307530.00
3	Bajra	693	235	0.34		70.50	470.00			77.55			618.05
4	Barley	4953	8910	1.80			11583.00						11583.00
5	Jowar	897	10790	12.03		2158.00	18343.00			5395.00			25896.00
6	Linseed	1197	148	0.00			217.56						217.56
7	Groundnut	248	89	0.36			178.00		26.70				204.70
8	Sunflower	1	2		6.00								6.00
9	Arhar	14610	6772	0.46			16930.00						16930.00
10	Lentil	11549	4573	0.40			8231.40						8231.40
11	Gram	27440	12374	0.45			13611.40						13611.40
12	Sugar cane	1626	208921	128.49							68943.93	10446.05	79389.98
13	Maize	7	13	1.86			26.00			3.90			29.90
14	Rape Seed and Mustard	11649	5316	0.46			9568.80						9568.80
15	Til (Sesame)	60478	16087	0.27			19304.40						19304.40
16	Moong	5651	1548	0.27			1702.80						1702.80
17	Urad	18384	5993	0.33			6592.30						6592.30
Total													**501681.89**

BUNDELKHAND REGION_CHITRAKOOT DHAM DIVISION_MAHOBA DISTRICT - 41													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area(Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	18	21	1.17	31.50	4.20	31.50						67.20
2	Wheat	23623	18593	0.79			27889.50	5577.90					33467.40
3	Bajra	0	0	0.00		0.00	0.00			0.00			0.00
4	Barley	2738	20979	7.66			27272.70						27272.70
5	Jowar	168	3751	22.33		750.20	6376.70			1875.50			9002.40
6	Linseed	2593	322	0.00			473.34						473.34
7	Groundnut	11254	3871	0.34			7742.00		1161.30				8903.30
8	Sunflower	10	16		48.00								48.00
9	Arhar	2024	908	0.45			2270.00						2270.00
10	Lentil	7010	617	0.09			1110.60						1110.60
11	Gram	11438	2283	0.20			2511.30						2511.30
12	Sugar cane	5695	109982	19.31							36294.06	5499.10	41793.16
13	Maize	11	20	1.82			40.00			6.00			46.00
14	Rape Seed and Mustard	3125	251	0.08			451.80						451.80
15	Til (Sesame)	66291	7093	0.11			8511.60						8511.60
16	Moong	10731	1288	0.12			1416.80						1416.80
17	Urad	55948	12644	0.23			13908.40						13908.40
Total													**151254.00**

BUNDELKHAND REGION_CHITRAKOOT DHAM DIVISION_BANDA DISTRICT - 42													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area(Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	44983	58253	1.30	87379.50	11650.60	87379.50						186409.60
2	Wheat	22873	27447	1.20			41170.50	8234.10					49404.60
3	Bajra	3331	1490	0.45		447.00	2980.00			491.70			3918.70
4	Barley	93	3084	33.16			4009.20						4009.20
5	Jowar	7981	21835	2.74		4367.00	37119.50			10917.50			52404.00
6	Linseed	1012	125	0.00			183.75						183.75
7	Groundnut	774	429	0.55			858.00		128.70				986.70
8	Sunflower	0	0		0.00								0.00
9	Arhar	17930	8146	0.45			20365.00						20365.00
10	Lentil	20527	8621	0.42			15517.80						15517.80
11	Gram	1534	571	0.37			628.10						628.10
12	Sugar cane	2998	15187	5.07							5011.71	759.35	5771.06
13	Maize	2	4	2.00			8.00			1.20			9.20
14	Rape Seed and Mustard	624	157	0.25			282.60						282.60
15	Til (Sesame)	49188	13576	0.28			16291.20						16291.20
16	Moong	3844	669	0.17			735.90						735.90
17	Urad	3710	605	0.16			665.50						665.50
Total													**357582.91**

BUNDELKHAND REGION_CHITRAKOOT DHAM DIVISION_CHITRAKOOT DISTRICT - 43													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area(Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	12842	8566	0.67	12849.00	1713.20	12849.00						27411.20
2	Wheat	59917	71499	1.19			107248.50	21449.70					128698.20
3	Bajra	14557	5163	0.35		1548.90	10326.00			1703.79			13578.69
4	Barley	2109	12913	6.12			16786.90						16786.90
5	Jowar	1598	21439	13.42		4287.80	36446.30			10719.50			51453.60
6	Linseed	717	89	0.00			130.83						130.83
7	Groundnut	376	134	0.36			268.00		40.20				308.20
8	Sunflower	0	0		0.00								0.00
9	Arhar	10193	2447	0.24			6117.50						6117.50
10	Lentil	3660	615	0.17			1107.00						1107.00
11	Gram	17659	5791	0.33			6370.10						6370.10
12	Sugar cane	414	5283	12.76							1743.39	264.15	2007.54
13	Maize	132	244	1.85			488.00			73.20			561.20
14	Rape Seed and Mustard	4795	834	0.17			1501.20						1501.20
15	Til (Sesame)	9507	1987	0.21			2384.40						2384.40
16	Moong	2327	397	0.17			436.70						436.70
17	Urad	1343	366	0.27			402.60						402.60
Total													**259255.86**

VARANASI DIVISION



All the data is taken as "000" MT/Year

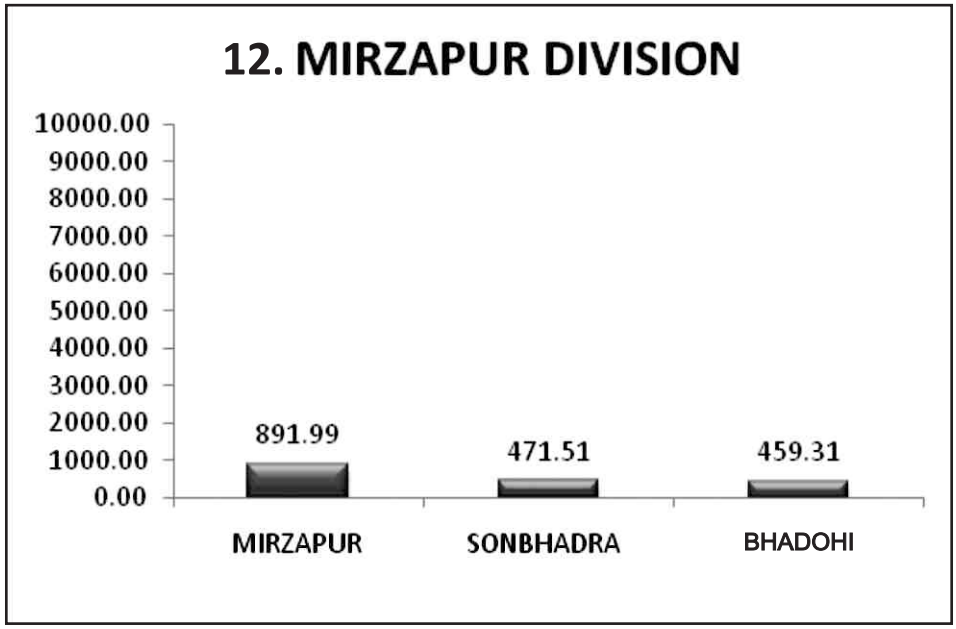
VARANASI DIVISION_VARANASI DISTRICT - 44													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area(Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	45770	94240	2.06	141360.00	18848.00	141360.00						301568.00
2	Wheat	68502	165021	2.41			247531.50	49506.30					297037.80
3	Bajra	5249	3956	0.75		1186.80	7912.00			1305.48			10404.28
4	Barley	374	766	2.05			995.80						995.80
5	Jowar	2029	1951	0.96		390.20	3316.70			975.50			4682.40
6	Linseed	6	1	0.00			1.47						1.47
7	Groundnut	1	1	1.00			2.00		0.30				2.30
8	Sunflower	0	0		0.00								0.00
9	Arhar	4115	3496	0.85			8740.00						8740.00
10	Lentil	187	155	0.83			279.00						279.00
11	Gram	2070	2210	1.07			2431.00						2431.00
12	Sugar cane	9251	235639	25.47							77760.87	11781.95	89542.82
13	Maize	2811	4318	1.54			8636.00			1295.40			9931.40
14	Rape Seed and Mustard	704	282	0.40			507.60						507.60
15	Til (Sesame)	350	46	0.13			55.20						55.20
16	Moong	238	52	0.22			57.20						57.20
17	Urad	1904	1465	0.77			1611.50						1611.50
Total													**727847.77**

VARANASI DIVISION_CHANDAULI DISTRICT - 45													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area(Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	113922	351449	3.08	527173.50	70289.80	527173.50						1124636.80
2	Wheat	97645	187312	1.92			280968.00	56193.60					337161.60
3	Bajra	5251	6777	1.29		2033.10	13554.00			2236.41			17823.51
4	Barley	731	2142	2.93			2784.60						2784.60
5	Jowar	941	461	0.49		92.20	783.70			230.50			1106.40
6	Linseed	525	54	0.00			79.38						79.38
7	Groundnut	3	2	0.67			4.00		0.60				4.60
8	Sunflower	0	0		0.00								0.00
9	Arhar	2783	2460	0.88			6150.00						6150.00
10	Lentil	8338	4102	0.49			7383.60						7383.60
11	Gram	1714	1714	1.00			1885.40						1885.40
12	Sugar cane	3716	41299	11.11							13628.67	2064.95	15693.62
13	Maize	26	37	1.42			74.00			11.10			85.10
14	Rape Seed and Mustard	283	113	0.40			203.40						203.40
15	Til (Sesame)	7	1	0.14			1.20						1.20
16	Moong	14	3	0.21			3.30						3.30
17	Urad	91	70	0.77			77.00						77.00
Total													1515079.51

VARANASI DIVISION_GHAZIPUR DISTRICT - 46													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area(Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	154411	334300	2.17	501450.00	66860.00	501450.00						1069760.00
2	Wheat	193108	460775	2.39			691162.50	138232.50					829395.00
3	Bajra	17322	30004	1.73		9001.20	60008.00			9901.32			78910.52
4	Barley	2146	25631	11.94			33320.30						33320.30
5	Jowar	4557	2017	0.44		403.40	3428.90			1008.50			4840.80
6	Linseed	0	0	0.00			0.00						0.00
7	Groundnut	69	47	0.68			94.00		14.10				108.10
8	Sunflower	23	37		111.00								111.00
9	Arhar	4976	4340	0.87			10850.00						10850.00
10	Lentil	4761	5213	1.09			9383.40						9383.40
11	Gram	2480	3872	1.56			4259.20						4259.20
12	Sugar cane	706	316441	448.22							104425.53	15822.05	120247.58
13	Maize	1047	1179	1.13			2358.00			353.70			2711.70
14	Rape Seed and Mustard	655	263	0.40			473.40						473.40
15	Til (Sesame)	13	2	0.15			2.40						2.40
16	Moong	39	8	0.21			8.80						8.80
17	Urad	375	289	0.77			317.90						317.90
Total													**2164700.10**

VARANASI DIVISION_JAUNPUR DISTRICT - 47													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area(Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	143897	253259	1.76	379888.50	50651.80	379888.50						810428.80
2	Wheat	219050	582892	2.66			874338.00	174867.60					1049205.60
3	Bajra	5905	6599	1.12		1979.70	13198.00			2177.67			17355.37
4	Barley	536	1176	2.19			1528.80						1528.80
5	Jowar	1890	4182	2.21		836.40	7109.40			2091.00			10036.80
6	Linseed	2	0	0.00			0.00						0.00
7	Groundnut	0	0	0.00			0.00		0.00				0.00
8	Sunflower	22	35		105.00								105.00
9	Arhar	9977	9515	0.95			23787.50						23787.50
10	Lentil	139	115	0.83			207.00						207.00
11	Gram	1787	3179	1.78			3496.90						3496.90
12	Sugar cane	5559	476882	85.79							157371.06	23844.10	181215.16
13	Maize	42868	61130	1.43			122260.00			18339.00			140599.00
14	Rape Seed and Mustard	3773	1511	0.40			2719.80						2719.80
15	Til (Sesame)	615	81	0.13			97.20						97.20
16	Moong	23	5	0.22			5.50						5.50
17	Urad	6306	6331	1.00			6964.10						6964.10
Total													**2247752.53**

MIRZAPUR DIVISION



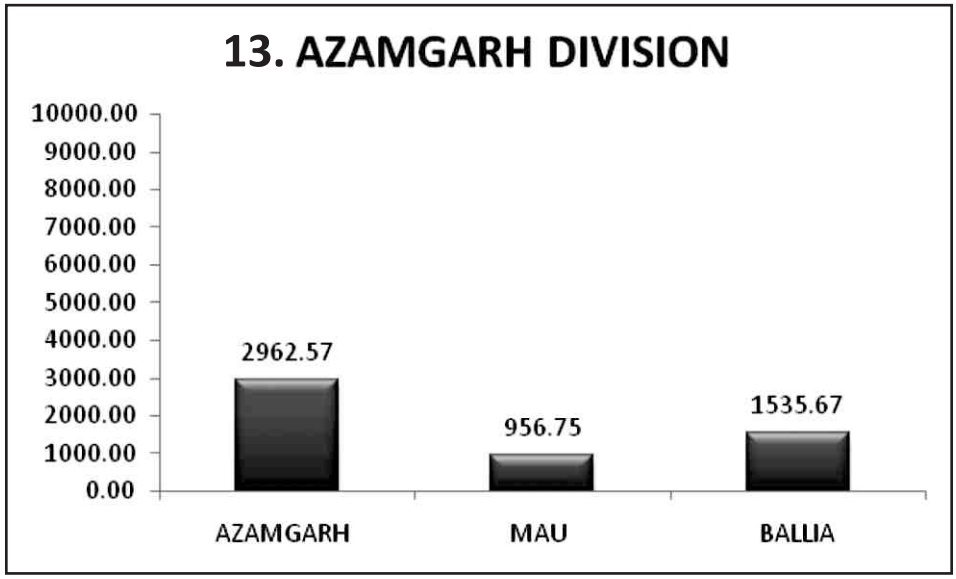
All the data is taken as "000" MT/Year

MIRZAPUR DIVISION_MIRZAPUR DISTRICT - 48													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area(Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	83955	145830	1.74	218745.00	29166.00	218745.00						466656.00
2	Wheat	90799	160943	1.77			241414.50	48282.90					289697.40
3	Bajra	9272	9851	1.06		2955.30	19702.00			3250.83			25908.13
4	Barley	3769	7204	1.91			9365.20						9365.20
5	Jowar	2090	4750	2.27		950.00	8075.00			2375.00			11400.00
6	Linseed	3073	716	0.00			1052.52						1052.52
7	Groundnut	350	273	0.78			546.00		81.90				627.90
8	Sunflower	33	53		159.00								159.00
9	Arhar	10868	8554	0.79			21385.00						21385.00
10	Lentil	4091	2651	0.65			4771.80						4771.80
11	Gram	12458	10224	0.82			11246.40						11246.40
12	Sugar cane	18296	110066	6.02							36321.78	5503.30	41825.08
13	Maize	1486	2216	1.49			4432.00			664.80			5096.80
14	Rape Seed and Mustard	2381	1198	0.50			2156.40						2156.40
15	Til (Sesame)	1448	210	0.15			252.00						252.00
16	Moong	107	23	0.21			25.30						25.30
17	Urad	707	330	0.47			363.00						363.00
Total													891987.93

MIRZAPUR DIVISION_SONBHADRA DISTRICT - 49													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area(Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	42653	63425	1.49	95137.50	12685.00	95137.50						202960.00
2	Wheat	58322	92744	1.59			139116.00	27823.20					166939.20
3	Bajra	24	22	0.92		6.60	44.00			7.26			57.86
4	Barley	4726	15122	3.20			19658.60						19658.60
5	Jowar	2945	3430	1.16		686.00	5831.00			1715.00			8232.00
6	Linseed	4405	1119	0.00			1644.93						1644.93
7	Groundnut	287	224	0.78			448.00		67.20				515.20
8	Sunflower	0	0		0.00								0.00
9	Arhar	8995	5909	0.66			14772.50						14772.50
10	Lentil	9649	5394	0.56			9709.20						9709.20
11	Gram	9679	7093	0.73			7802.30						7802.30
12	Sugar cane	1642	14546	8.86							4800.18	727.30	5527.48
13	Maize	14544	12028	0.83			24056.00			3608.40			27664.40
14	Rape Seed and Mustard	4013	1589	0.40			2860.20						2860.20
15	Til (Sesame)	7535	1093	0.15			1311.60						1311.60
16	Moong	30	7	0.23			7.70						7.70
17	Urad	3610	1682	0.47			1850.20						1850.20
Total													**471513.37**

MIRZAPUR DIVISION_BHADOHI DISTRICT - 50													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area(Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	28180	58502	2.08	87753.00	11700.40	87753.00						187206.40
2	Wheat	48930	108576	2.22			162864.00	32572.80					195436.80
3	Bajra	9030	10104	1.12		3031.20	20208.00			3334.32			26573.52
4	Barley	257	619	2.41			804.70						804.70
5	Jowar	1366	1504	1.10		300.80	2556.80			752.00			3609.60
6	Linseed	0	0	0.00			0.00						0.00
7	Groundnut	20	15	0.75			30.00		4.50				34.50
8	Sunflower	0	0		0.00								0.00
9	Arhar	3969	6161	1.55			15402.50						15402.50
10	Lentil	9	14	1.56			25.20						25.20
11	Gram	641	497	0.78			546.70						546.70
12	Sugar cane	217	73333	337.94							24199.89	3666.65	27866.54
13	Maize	566	503	0.89			1006.00			150.90			1156.90
14	Rape Seed and Mustard	190	84	0.44			151.20						151.20
15	Til (Sesame)	307	45	0.15			54.00						54.00
16	Moong	0	0	0.00			0.00						0.00
17	Urad	863	402	0.47			442.20						442.20
Total													**459310.76**

AZAMGARH DIVISION



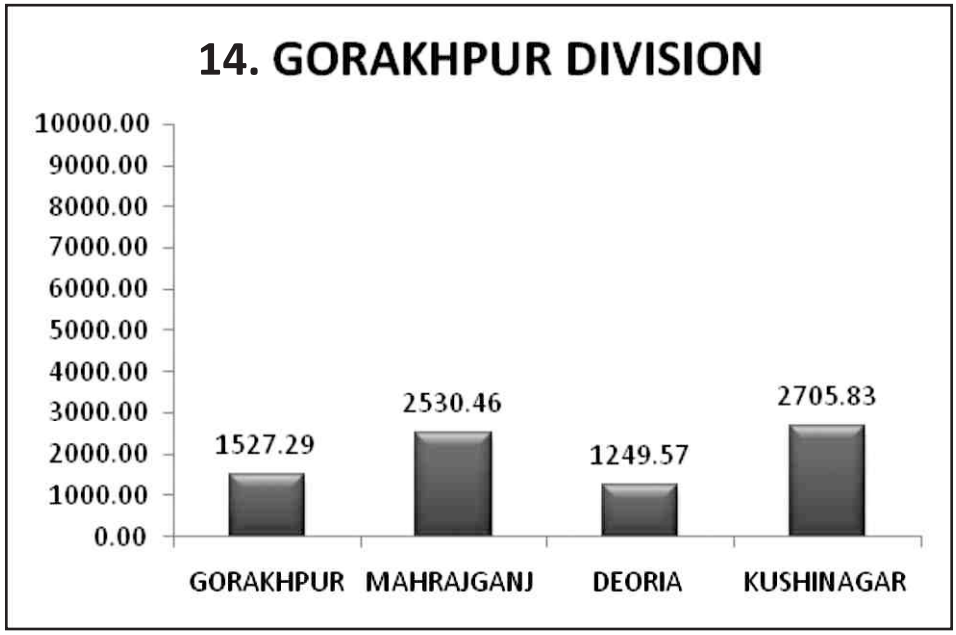
All the data is taken as "000" MT/Year

AZAMGARH DIVISION_AZAMGARH DISTRICT - 51													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area(Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	207312	408405	1.97	612607.50	81681.00	612607.50						1306896.00
2	Wheat	231153	630354	2.73			945531.00	189106.20					1134637.20
3	Bajra	32	58	1.81		17.40	116.00			19.14			152.54
4	Barley	2601	5563	2.14			7231.90						7231.90
5	Jowar	0	2	0.00		0.40	3.40			1.00			4.80
6	Linseed	0	0	0.00			0.00						0.00
7	Groundnut	206	139	0.67			278.00		41.70				319.70
8	Sunflower	19	31		93.00								93.00
9	Arhar	7618	7739	1.02			19347.50						19347.50
10	Lentil	78	92	1.18			165.60						165.60
11	Gram	16	15	0.94			16.50						16.50
12	Sugar cane	2953	1232094	417.23							406591.02	61604.70	468195.72
13	Maize	5642	9507	1.69			19014.00			2852.10			21866.10
14	Rape Seed and Mustard	1920	1963	1.02			3533.40						3533.40
15	Til (Sesame)	169	51	0.30			61.20						61.20
16	Moong	1	0	0.00			0.00						0.00
17	Urad	158	46	0.29			50.60						50.60
Total													**2962571.76**

AZAMGARH DIVISION_MAU DISTRICT - 52													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area(Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	85683	124754	1.46	187131.00	24950.80	187131.00						399212.80
2	Wheat	92953	232661	2.50			348991.50	69798.30					418789.80
3	Bajra	9	16	1.78		4.80	32.00			5.28			42.08
4	Barley	2438	4222	1.73			5488.60						5488.60
5	Jowar	0	12	0.00		2.40	20.40			6.00			28.80
6	Linseed	0	0	0.00			0.00						0.00
7	Groundnut	305	206	0.68			412.00		61.80				473.80
8	Sunflower	12	19		57.00								57.00
9	Arhar	2429	2430	1.00			6075.00						6075.00
10	Lentil	214	251	1.17			451.80						451.80
11	Gram	1460	1359	0.93			1494.90						1494.90
12	Sugar cane	20720	324558	15.66							107104.14	16227.90	123332.04
13	Maize	235	282	1.20			564.00			84.60			648.60
14	Rape Seed and Mustard	352	360	1.02			648.00						648.00
15	Til (Sesame)	24	7	0.29			8.40						8.40
16	Moong	0	0	0.00			0.00						0.00
17	Urad	3	1	0.33			1.10						1.10
Total													**956752.72**

AZAMGARH DIVISION_BALLIA DISTRICT - 53													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area(Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	115763	196103	1.69	294154.50	39220.60	294154.50						627529.60
2	Wheat	139202	376862	2.71			565293.00	113058.60					678351.60
3	Bajra	2272	4113	1.81		1233.90	8226.00			1357.29			10817.19
4	Barley	3747	8011	2.14			10414.30						10414.30
5	Jowar	1337	1869	1.40		373.80	3177.30			934.50			4485.60
6	Linseed	0	0	0.00			0.00						0.00
7	Groundnut	163	110	0.67			220.00		33.00				253.00
8	Sunflower	73	117		351.00								351.00
9	Arhar	4850	4302	0.89			10755.00						10755.00
10	Lentil	13631	16003	1.17			28805.40						28805.40
11	Gram	1185	1103	0.93			1213.30						1213.30
12	Sugar cane	6146	232591	37.84							76755.03	11629.55	88384.58
13	Maize	28695	31651	1.10			63302.00			9495.30			72797.30
14	Rape Seed and Mustard	824	842	1.02			1515.60						1515.60
15	Til (Sesame)	1	0	0.00			0.00						0.00
16	Moong	0	0	0.00			0.00						0.00
17	Urad	4	1	0.25			1.10						1.10
Total													**1535674.57**

GORAKHPUR DIVISION



All the data is taken as "000" MT/Year

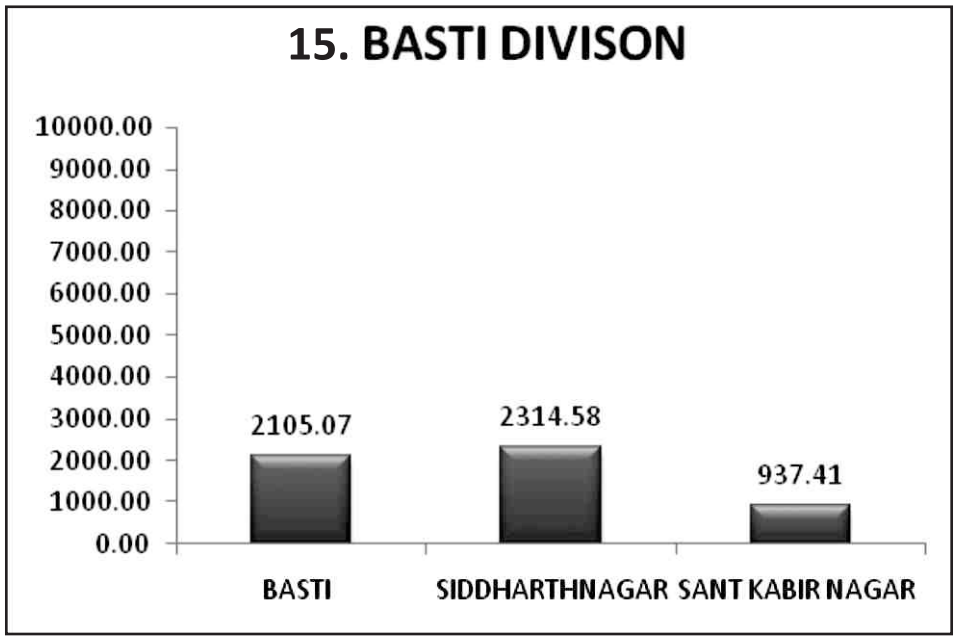
GORAKHPUR DIVISION_GORAKHPUR DISTRICT - 54													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area(Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	150540	209950	1.39	314925.00	41990.00	314925.00						671840.00
2	Wheat	190692	424862	2.23			637293.00	127458.60					764751.60
3	Bajra	18	32	1.78		9.60	64.00			10.56			84.16
4	Barley	1081	6476	5.99			8418.80						8418.80
5	Jowar	2	0	0.00		0.00	0.00			0.00			0.00
6	Linseed	0	0	0.00			0.00						0.00
7	Groundnut	3774	3827	1.01			7654.00		1148.10				8802.10
8	Sunflower	276	444		1332.00								1332.00
9	Arhar	3500	2309	0.66			5772.50						5772.50
10	Lentil	675	426	0.63			766.80						766.80
11	Gram	292	174	0.60			191.40						191.40
12	Sugar cane	30887	138941	4.50							45850.53	6947.05	52797.58
13	Maize	3011	4077	1.35			8154.00			1223.10			9377.10
14	Rape Seed and Mustard	2946	1695	0.58			3051.00						3051.00
15	Til (Sesame)	291	88	0.30			105.60						105.60
16	Moong	0	0	0.00			0.00						0.00
17	Urad	7	2	0.29			2.20						2.20
Total													**1527292.84**

GORAKHPUR DIVISION_MAHRAJGANJ DISTRICT - 55													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area(Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	169804	418308	2.46	627462.00	83661.60	627462.00						1338585.60
2	Wheat	153291	459260	3.00			688890.00	137778.00					826668.00
3	Bajra	0	0	0.00		0.00	0.00			0.00			0.00
4	Barley	25	300	12.00			390.00						390.00
5	Jowar	0	0	0.00		0.00	0.00			0.00			0.00
6	Linseed	169	32	0.00			47.04						47.04
7	Groundnut	830	653	0.79			1306.00		195.90				1501.90
8	Sunflower	30	48		144.00								144.00
9	Arhar	238	157	0.66			392.50						392.50
10	Lentil	10437	6596	0.63			11872.80						11872.80
11	Gram	79	47	0.59			51.70						51.70
12	Sugar cane	2616	914307	349.51							301721.31	45715.35	347436.66
13	Maize	66	131	1.98			262.00			39.30			301.30
14	Rape Seed and Mustard	3085	1669	0.54			3004.20						3004.20
15	Til (Sesame)	152	46	0.30			55.20						55.20
16	Moong	0	0	0.00			0.00						0.00
17	Urad	16	5	0.31			5.50						5.50
Total													**2530456.40**

GORAKHPUR DIVISION_DEORIA DISTRICT - 56													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area(Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	124280	96441	0.78	144661.50	19288.20	144661.50						308611.20
2	Wheat	156721	398853	2.54			598279.50	119655.90					717935.40
3	Bajra	248	449	1.81		134.70	898.00			148.17			1180.87
4	Barley	304	1532	5.04			1991.60						1991.60
5	Jowar	30	74	2.47		14.80	125.80			37.00			177.60
6	Linseed	0	0	0.00			0.00						0.00
7	Groundnut	2278	1324	0.58			2648.00		397.20				3045.20
8	Sunflower	0	0		0.00								0.00
9	Arhar	3423	2258	0.66			5645.00						5645.00
10	Lentil	166	105	0.63			189.00						189.00
11	Gram	100	59	0.59			64.90						64.90
12	Sugar cane	15205	468961	30.84							154757.13	23448.05	178205.18
13	Maize	6220	13417	2.16			26834.00			4025.10			30859.10
14	Rape Seed and Mustard	1587	913	0.58			1643.40						1643.40
15	Til (Sesame)	68	21	0.31			25.20						25.20
16	Moong	0	0	0.00			0.00						0.00
17	Urad	0	0	0.00			0.00						0.00
Total													1249573.65

GORAKHPUR DIVISION_KUSHINAGAR DISTRICT - 57													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area(Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	112213	177633	1.58	266449.50	35526.60	266449.50						568425.60
2	Wheat	117350	274130	2.34			411195.00	82239.00					493434.00
3	Bajra	69	125	1.81		37.50	250.00			41.25			328.75
4	Barley	96	359	3.74			466.70						466.70
5	Jowar	1	0	0.00		0.00	0.00			0.00			0.00
6	Linseed	0	0	0.00			0.00						0.00
7	Groundnut	381	321	0.84			642.00		96.30				738.30
8	Sunflower	0	0		0.00								0.00
9	Arhar	564	372	0.66			930.00						930.00
10	Lentil	2759	1744	0.63			3139.20						3139.20
11	Gram	10	6	0.60			6.60						6.60
12	Sugar cane	7700	4251063	552.09							1402850.79	212553.15	1615403.94
13	Maize	2558	5876	2.30			11752.00			1762.80			13514.80
14	Rape Seed and Mustard	7258	5227	0.72			9408.60						9408.60
15	Til (Sesame)	75	23	0.31			27.60						27.60
16	Moong	4	1	0.25			1.10						1.10
17	Urad	21	6	0.29			6.60						6.60
Total													2705831.79

BASTI DIVISION



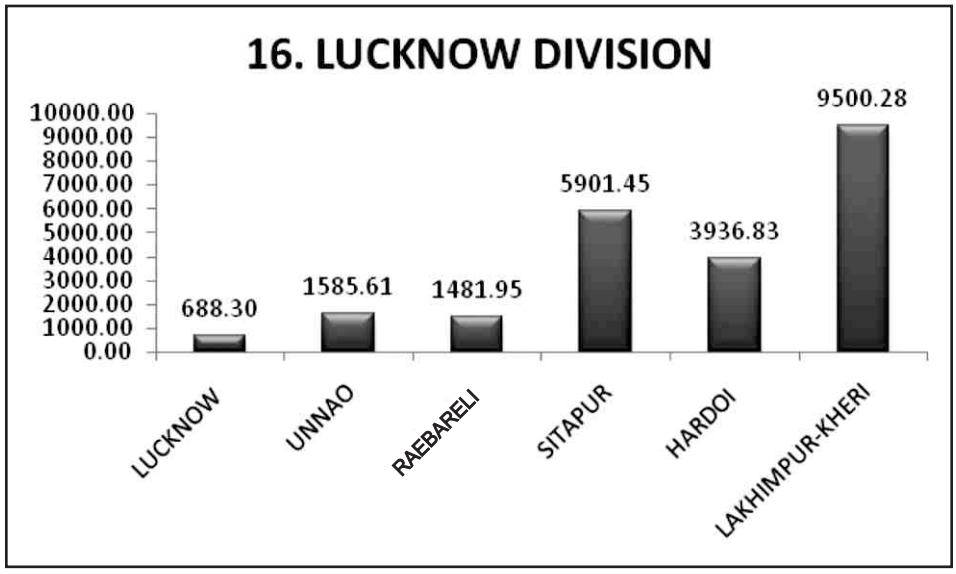
All the data is taken as "000" MT/Year

BASTI DIVISION_BASTI DISTRICT - 58													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area(Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	98297	184798	1.88	277197.00	36959.60	277197.00						591353.60
2	Wheat	113071	295681	2.62			443521.50	88704.30					532225.80
3	Bajra	0	0	0.00		0.00	0.00			0.00			0.00
4	Barley	0	0	0.00			0.00						0.00
5	Jowar	0	0	0.00		0.00	0.00			0.00			0.00
6	Linseed	0	0	0.00			0.00						0.00
7	Groundnut	1	1	1.00			2.00		0.30				2.30
8	Sunflower	26	42		126.00								126.00
9	Arhar	2564	1667	0.65			4167.50						4167.50
10	Lentil	1259	894	0.71			1609.20						1609.20
11	Gram	1259	894	0.71			983.40						983.40
12	Sugar cane	93360	2527936	27.08							834218.88	126396.80	960615.68
13	Maize	1900	3513	1.85			7026.00			1053.90			8079.90
14	Rape Seed and Mustard	3139	3211	1.02			5779.80						5779.80
15	Til (Sesame)	177	54	0.31			64.80						64.80
16	Moong	0	0	0.00			0.00						0.00
17	Urad	206	60	0.29			66.00						66.00
Total													**2105073.98**

BASTI DIVISION_SIDDHARTHNAGAR DISTRICT - 59													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area(Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	184234	416737	2.26	625105.50	83347.40	625105.50						1333558.40
2	Wheat	150792	503947	3.34			755920.50	151184.10					907104.60
3	Bajra	0	0	0.00		0.00	0.00			0.00			0.00
4	Barley	6	14	2.33			18.20						18.20
5	Jowar	0	0	0.00		0.00	0.00			0.00			0.00
6	Linseed	1675	320	0.00			470.40						470.40
7	Groundnut	77	52	0.68			104.00		15.60				119.60
8	Sunflower	0	0		0.00								0.00
9	Arhar	1865	1212	0.65			3030.00						3030.00
10	Lentil	3873	2750	0.71			4950.00						4950.00
11	Gram	0	0	0.00			0.00						0.00
12	Sugar cane	41263	151139	3.66							49875.87	7556.95	57432.82
13	Maize	841	1555	1.85			3110.00			466.50			3576.50
14	Rape Seed and Mustard	2323	2376	1.02			4276.80						4276.80
15	Til (Sesame)	4	1	0.25			1.20						1.20
16	Moong	0	0	0.00			0.00						0.00
17	Urad	145	42	0.29			46.20						46.20
Total													**2314584.72**

BASTI DIVISION_SANT KABIR NAGAR DISTRICT - 60													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area(Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	79542	139596	1.75	209394.00	27919.20	209394.00						446707.20
2	Wheat	90896	231058	2.54			346587.00	69317.40					415904.40
3	Bajra	4	7	1.75		2.10	14.00			2.31			18.41
4	Barley	380	1244	3.27			1617.20						1617.20
5	Jowar	0	0	0.00		0.00	0.00			0.00			0.00
6	Linseed	0	0	0.00			0.00						0.00
7	Groundnut	1350	911	0.67			1822.00		273.30				2095.30
8	Sunflower	1	1		3.00								3.00
9	Arhar	3202	2081	0.65			5202.50						5202.50
10	Lentil	864	613	0.71			1103.40						1103.40
11	Gram	307	189	0.62			207.90						207.90
12	Sugar cane	2467	139253	56.45							45953.49	6962.65	52916.14
13	Maize	1678	3103	1.85			6206.00			930.90			7136.90
14	Rape Seed and Mustard	2401	2456	1.02			4420.80						4420.80
15	Til (Sesame)	183	55	0.30			66.00						66.00
16	Moong	0	0	0.00			0.00						0.00
17	Urad	19	6	0.32			6.60						6.60
Total													**937405.75**

LUCKNOW DIVISION



All the data is taken as "000" MT/Year

LUCKNOW DIVISION_LUCKNOW DISTRICT - 61													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area(Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	52944	107265	2.03	160897.5	21453	160897.5						343248
2	Wheat	78645	176399	2.24			264598.5	52919.7					317518.2
3	Bajra	546	638	1.17		191.4	1276			210.54			1677.94
4	Barley	88	342	3.89			444.6						444.6
5	Jowar	65	52	0.80		10.4	88.4			26			124.8
6	Linseed	0	0	0.00			0						0
7	Groundnut	65	52	0.00			104		15.6				119.6
8	Sunflower	0	0	0.00			0						0
9	Arhar	509	448	0.88			1120						1120
10	Lentil	1668	1307	0.00			2352.6						2352.6
11	Gram	621	311	0.00			342.1						342.1
12	Sugar cane	46003	13393	0.29							4419.69	669.65	5089.34
13	Maize	975	1127	1.16			2254			338.1			2592.1
14	Rape Seed and Mustard	3998	2969	0.742621311			7196.4						7196.4
15	Til (Sesame)	468	271	0.58			325.2						325.2
16	Moong	289	162	0.56			178.2						178.2
17	Urad	5429	2340	0.43			5971.9						5971.9
	Total												688300.98

LUCKNOW DIVISION_UNNAO DISTRICT - 62													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area(Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	87263	138221	1.58	207331.5	27644.2	207331.5						442307.2
2	Wheat	237761	528305	2.22			792457.5	158491.5					950949
3	Bajra	1105	1509	1.37		452.7	3018			497.97			3968.67
4	Barley	1158	2727	2.35			3545.1						3545.1
5	Jowar	1719	3785	2.20		757	6434.5			1892.5			9084
6	Linseed	13	2	0.15			2.94						2.94
7	Groundnut	1856	1214	0.04			2428		364.2				2792.2
8	Sunflower	41	67	1.63			201						201
9	Arhar	2351	1697	0.72			4242.5						4242.5
10	Lentil	714	559	0.00			1006.2						1006.2
11	Gram	1850	1439	0.00			1582.9						1582.9
12	Sugar cane	203	40774	200.86							13455.42	2038.7	15494.12
13	Maize	25152	38130	1.52			76260			11439			87699
14	Rape Seed and Mustard	15079	11692	0.775382983			27142.2						27142.2
15	Til (Sesame)	17630	1763	0.10			2115.6						2115.6
16	Moong	4167	2329	0.56			2561.9						2561.9
17	Urad	28108	11890	0.42			30918.8						30918.8
	Total												**1585613.33**

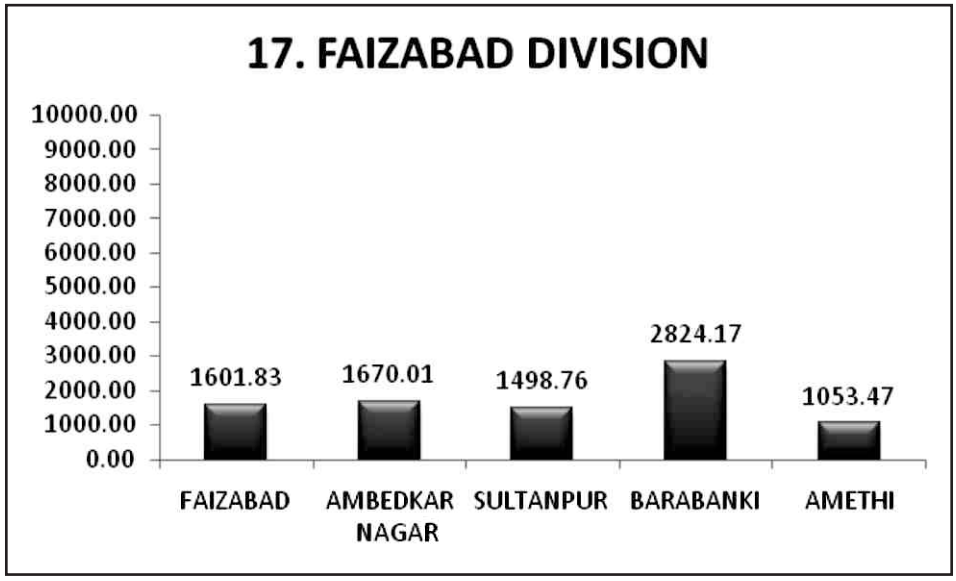
LUCKNOW DIVISION_RAEBARELI DISTRICT - 63													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area(Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	116435	247541	2.13	371311.5	49508.2	371311.5						792131.2
2	Wheat	167579	329963	1.97			494944.5	98988.9					593933.4
3	Bajra	533	622	1.17		186.6	1244			205.26			1635.86
4	Barley	1472	10279	6.98			13362.7						13362.7
5	Jowar	2724	3779	1.39		755.8	6424.3			1889.5			9069.6
6	Linseed	5	1	0.20			1.47						1.47
7	Groundnut	610	166	0.00			332		49.8				381.8
8	Sunflower	0	0	0.00			0						0
9	Arhar	3843	1493	0.39			3732.5						3732.5
10	Lentil	50	39	0.00			70.2						70.2
11	Gram	5003	255	0.00			280.5						280.5
12	Sugar cane	618	91518	148.09							30200.94	4575.9	34776.84
13	Maize	36	61	1.69			122			18.3			140.3
14	Rape Seed and Mustard	7071	2657	0.375760147			12727.8						12727.8
15	Til (Sesame)	4932	2851	0.58			3421.2						3421.2
16	Moong	981	548	0.56			602.8						602.8
17	Urad	14255	2338	0.16			15680.5						15680.5
	Total												**1481948.67**

LUCKNOW DIVISION_SITAPUR DISTRICT - 64													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area(Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	160523	346271	2.16	519406.5	69254.2	519406.5						1108067.2
2	Wheat	214593	533264	2.49			799896	159979.2					959875.2
3	Bajra	2696	2566	0.95		769.8	5132			846.78			6748.58
4	Barley	430	1665	3.87			2164.5						2164.5
5	Jowar	2205	5358	2.43		1071.6	9108.6			2679			12859.2
6	Linseed	0	0	0.00			0						0
7	Groundnut	3018	2191	0.73			4382		657.3				5039.3
8	Sunflower	0	0	0.00			0						0
9	Arhar	1868	3394	1.82			8485						8485
10	Lentil	16795	10984	0.00			19771.2						19771.2
11	Gram	343	172	0.00			189.2						189.2
12	Sugar cane	1704	9716991	5702.46							3206607.03	485849.55	3692456.58
13	Maize	8459	8459	1.00			16918			2537.7			19455.7
14	Rape Seed and Mustard	24189	20059	0.829261234			43540.2						43540.2
15	Til (Sesame)	9491	8362	0.88			10034.4						10034.4
16	Moong	3	2	0.67			2.2						2.2
17	Urad	11599	4744	0.41			12758.9						12758.9
	Total												5901447.36

LUCKNOW DIVISION_HARDOI DISTRICT - 65													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area(Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	133844	301882	2.26	452823	60376.4	452823						966022.4
2	Wheat	326565	980017	3.00			1470025.5	294005.1					1764030.6
3	Bajra	3592	5096	1.42		1528.8	10192			1681.68			13402.48
4	Barley	532	4485	8.43			5830.5						5830.5
5	Jowar	9054	7722	0.85		1544.4	13127.4			3861			18532.8
6	Linseed	0	0	0.00			0						0
7	Groundnut	8488	7503	0.88			15006		2250.9				17256.9
8	Sunflower	76	123	0.00			369						369
9	Arhar	1449	1276	0.88			3190						3190
10	Lentil	6604	5825	0.00			10485						10485
11	Gram	499	250	0.00			275						275
12	Sugar cane	146006	2304189	15.78							760382.37	115209.45	875591.82
13	Maize	40649	82355	2.03			164710			24706.5			189416.5
14	Rape Seed and Mustard	12839	11570	0.901160527			23110.2						23110.2
15	Til (Sesame)	28430	20214	0.71			24256.8						24256.8
16	Moong	65	36	0.55			39.6						39.6
17	Urad	22746	11418	0.50			25020.6						25020.6
	Total												**3936830.2**

LUCKNOW DIVISION_LAKHIMPUR-KHIRI DISTRICT - 66													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area(Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	158813	411097	2.59	616645.5	82219.4	616645.5						1315510.4
2	Wheat	176599	599200	3.39			898800	179760					1078560
3	Bajra	276	322	1.17		96.6	644			106.26			846.86
4	Barley	291	1876	6.45			2438.8						2438.8
5	Jowar	58	236	0.00		47.2	401.2			118			566.4
6	Linseed	0	0	0.00			0						0
7	Groundnut	4337	3643	0.00			7286		1092.9				8378.9
8	Sunflower	4	6	1.50			18						18
9	Arhar	577	508	0.88			1270						1270
10	Lentil	14012	12443	0.00			22397.4						22397.4
11	Gram	65	32	0.00			35.2						35.2
12	Sugar cane	36893	18418200	499.23							6078006	920910	6998916
13	Maize	3701	4404	1.19			8808			1321.2			10129.2
14	Rape Seed and Mustard	28829	24694	0.856568039			51892.2						51892.2
15	Til (Sesame)	6618	5572	0.84			6686.4						6686.4
16	Moong	114	64	0.56			70.4						70.4
17	Urad	2328	1867	0.80			2560.8						2560.8
	Total												**9500276.96**

FAIZABAD DIVISION



All the data is taken as "000" MT/Year

FAIZABAD DIVISION_FAIZABAD DISTRICT - 67													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area(Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	93220	194643	2.09	291964.5	38928.6	291964.5						622857.6
2	Wheat	109189	299178	2.74			448767	89753.4					538520.4
3	Bajra	3	2	0.67		0.6	4			0.66			5.26
4	Barley	341	615	1.80			799.5						799.5
5	Jowar	1848	2132	1.15		426.4	3624.4			1066			5116.8
6	Linseed	14	3	0.21			4.41						4.41
7	Groundnut	0	0	0.00			0		0				0
8	Sunflower	43	69	1.60			207						207
9	Arhar	2084	1766	0.85			4415						4415
10	Lentil	1917	1003	0.00			1805.4						1805.4
11	Gram	1605	969	0.00			1065.9						1065.9
12	Sugar cane	462723	1094732	2.37							361261.56	54736.6	415998.16
13	Maize	1930	955	0.49			1910			286.5			2196.5
14	Rape Seed and Mustard	3734	2819	0.754954472			6721.2						6721.2
15	Til (Sesame)	39	8	0.21			9.6						9.6
16	Moong	0	0	0.00			0						0
17	Urad	1920	315	0.16			2112						2112
	Total												**1601834.73**

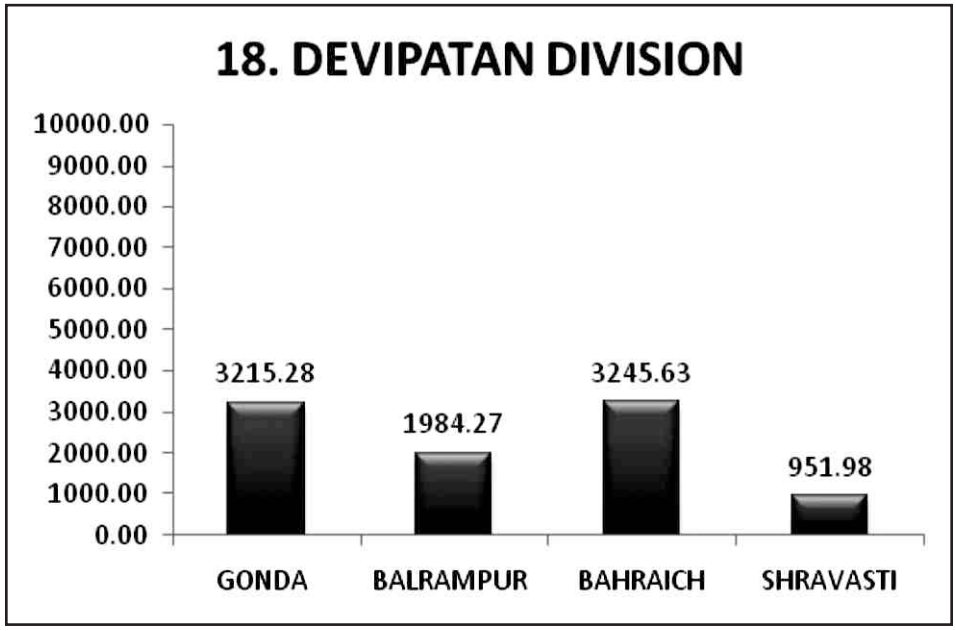
FAIZABAD DIVISION_AMBEDKAR NAGAR DISTRICT - 68													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area(Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	112181	236814	2.11	355221	47362.8	355221						757804.8
2	Wheat	120248	382749	3.18			574123.5	114824.7					688948.2
3	Bajra	23	12	0.52		3.6	24			3.96			31.56
4	Barley	164	2209	13.47			2871.7						2871.7
5	Jowar	689	971	1.41		194.2	1650.7			485.5			2330.4
6	Linseed	14	3	0.21			4.41						4.41
7	Groundnut	0	0	0.00			0		0				0
8	Sunflower	8	13	1.63			39						39
9	Arhar	2944	2495	0.85			6237.5						6237.5
10	Lentil	280	147	0.00			264.6						264.6
11	Gram	1192	719	0.00			790.9						790.9
12	Sugar cane	16610	534112	32.16							176256.96	26705.6	202962.56
13	Maize	426	211	0.50			422			63.3			485.3
14	Rape Seed and Mustard	3934	2971	0.755210981			7081.2						7081.2
15	Til (Sesame)	31	6	0.19			7.2						7.2
16	Moong	0	0	0.00			0						0
17	Urad	140	23	0.16			154						154
Total													**1670013.33**

FAIZABAD DIVISION_SULTANPUR DISTRICT - 69													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area(Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	99552	206770	2.08	310155	41354	310155						661664
2	Wheat	116068	329401	2.84			494101.5	98820.3					592921.8
3	Bajra	134	70	0.52		21	140			23.1			184.1
4	Barley	909	2486	2.73			3231.8						3231.8
5	Jowar	6304	5909	0.94		1181.8	10045.3			2954.5			14181.6
6	Linseed	21	4	0.19			5.88						5.88
7	Groundnut	19	9	0.47			18		2.7				20.7
8	Sunflower	4	7	1.75			21						21
9	Arhar	7142	6053	0.85			15132.5						15132.5
10	Lentil	5750	3010	0.52			5418						5418
11	Gram	1306	788	0.60			866.8						866.8
12	Sugar cane	8707	509010	58.46							167973.3	25450.5	193423.8
13	Maize	4239	2098	0.49			4196			629.4			4825.4
14	Rape Seed and Mustard	2830	2137	0.755123675			5094						5094
15	Til (Sesame)	629	126	0.20			151.2						151.2
16	Moong	39	9	6.15			9.9						9.9
17	Urad	1465	240	0.16			1611.5						1611.5
	Total												**1498763.98**

FAIZABAD DIVISION_BARABANKI DISTRICT - 70													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area(Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	186626	513408	2.75	770112	102681.6	770112						1642905.6
2	Wheat	167622	498340	2.97			747510	149502					897012
3	Bajra	454	239	0.53		71.7	478			78.87			628.57
4	Barley	886	169	0.19			219.7						219.7
5	Jowar	695	1678	2.41		335.6	2852.6			839			4027.2
6	Linseed	18	4	0.22			5.88						5.88
7	Groundnut	45	22	0.49			44		6.6				50.6
8	Sunflower	4	6	1.50			18						18
9	Arhar	1042	841	0.81			2102.5						2102.5
10	Lentil	7869	5327	0.68			9588.6						9588.6
11	Gram	452	273	0.60			300.3						300.3
12	Sugar cane	9363	549506	58.69							181336.98	27475.3	208812.28
13	Maize	2745	1359	0.50			2718			407.7			3125.7
14	Rape Seed and Mustard	25041	19006	0.758995248			45073.8						45073.8
15	Til (Sesame)	118	24	0.20			28.8						28.8
16	Moong	6	1	255.17			1.1						1.1
17	Urad	9335	1531	0.16			10268.5						10268.5
	Total												**2824169.13**

FAIZABAD DIVISION_ AMETHI DISTRICT - 71													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area(Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	92511	181969	1.97	272953.5	36393.8	272953.5						582300.8
2	Wheat	93992	223231	2.38			334846.5	66969.3					401815.8
3	Bajra	213	112	0.53		33.6	224			36.96			294.56
4	Barley	751	3882	5.17			5046.6						5046.6
5	Jowar	3323	4641	1.40		928.2	7889.7			2320.5			11138.4
6	Linseed	13	2	0.15			2.94						2.94
7	Groundnut	0	0	0.00			0		0				0
8	Sunflower	15	24	1.60			72						72
9	Arhar	3874	3284	0.85			8210						8210
10	Lentil	1806	945	0.52			1701						1701
11	Gram	2087	1260	0.60			1386						1386
12	Sugar cane	9128	90603	9.93							29898.99	4530.15	34429.14
13	Maize	437	216	0.49			432			64.8			496.8
14	Rape Seed and Mustard	2185	1650	0.755148741			3933						3933
15	Til (Sesame)	517	104	0.20			124.8						124.8
16	Moong	52	11	7.17			12.1						12.1
17	Urad	2275	373	0.16			2502.5						2502.5
	Total												**1053466.44**

DEVIPATAN DIVISION



All the data is taken as "000" MT/Year

DEVI PATAN DIVISION_ GONDA DISTRICT - 72													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area(Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	125044	257716	2.06	386574	51543.2	386574						824691.2
2	Wheat	157831	436561	2.77			654841.5	130968.3					785809.8
3	Bajra	0	0	0.00		0	0			0			0
4	Barley	440	2115	4.81			2749.5						2749.5
5	Jowar	0	0	0.00		0	0			0			0
6	Linseed	12	2	0.17			2.94						2.94
7	Groundnut	6	4	0.67			8		1.2				9.2
8	Sunflower	15	24	1.60			72						72
9	Arhar	3161	2084	0.66			5210						5210
10	Lentil	11462	9330	0.81			16794						16794
11	Gram	555	544	0.98			598.4						598.4
12	Sugar cane	45285	3968579	87.64							1309631.07	198428.95	1508060.02
13	Maize	22027	24604	1.12			49208			7381.2			56589.2
14	Rape Seed and Mustard	7742	7555	0.975846035			13935.6						13935.6
15	Til (Sesame)	395	120	0.30			144						144
16	Moong	22	5	7.32			5.5						5.5
17	Urad	554	161	0.29			609.4						609.4
	Total												3215280.76

DEVI PATAN DIVISION_ BALRAMPUR DISTRICT - 73													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area(Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	107782	194331	1.80	291496.5	38866.2	291496.5						621859.2
2	Wheat	85833	205055	2.39			307582.5	61516.5					369099
3	Bajra	0	0	0.00		0	0			0			0
4	Barley	0	0	0.00			0						0
5	Jowar	4	2	0.00		0.4	3.4			1			4.8
6	Linseed	5	1	0.20			1.47						1.47
7	Groundnut	8	5	0.63			10		1.5				11.5
8	Sunflower	19	30	1.58			90						90
9	Arhar	9052	5856	0.65			14640						14640
10	Lentil	27084	24484	0.90			44071.2						44071.2
11	Gram	1028	1007	0.98			1107.7						1107.7
12	Sugar cane	72834	2368603	32.52							781638.99	118430.15	900069.14
13	Maize	2733	700	0.26			1400			210			1610
14	Rape Seed and Mustard	16786	14000	0.834028357			30214.8						30214.8
15	Til (Sesame)	18	5	0.28			6						6
16	Moong	0	0	0.00			0						0
17	Urad	1347	392	0.29			1481.7						1481.7
	Total												1984266.51

DEVI PATAN DIVISION_ BAHRAICH DISTRICT - 74													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area(Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	168151	317469	1.89	476203.5	63493.8	476203.5						1015900.8
2	Wheat	183146	487352	2.66			731028	146205.6					877233.6
3	Bajra	6	10	1.67		3	20			3.3			26.3
4	Barley	258	304	0.00			395.2						395.2
5	Jowar	10	55	0.00		11	93.5			27.5			132
6	Linseed	3	1	0.33			1.47						1.47
7	Groundnut	1024	691	0.67			1382		207.3				1589.3
8	Sunflower	21	34	1.62			102						102
9	Arhar	2802	1996	0.71			4990						4990
10	Lentil	40442	35023	0.87			63041.4						63041.4
11	Gram	19	19	1.00			20.9						20.9
12	Sugar cane	44049	2953266	67.05							974577.78	147663.3	1122241.08
13	Maize	52789	61763	1.17			123526			18528.9			142054.9
14	Rape Seed and Mustard	9210	6944	0.753963084			16578						16578
15	Til (Sesame)	388	118	0.30			141.6						141.6
16	Moong	4	1	0.00			1.1						1.1
17	Urad	1072	312	0.29			1179.2						1179.2
	Total												**3245628.85**

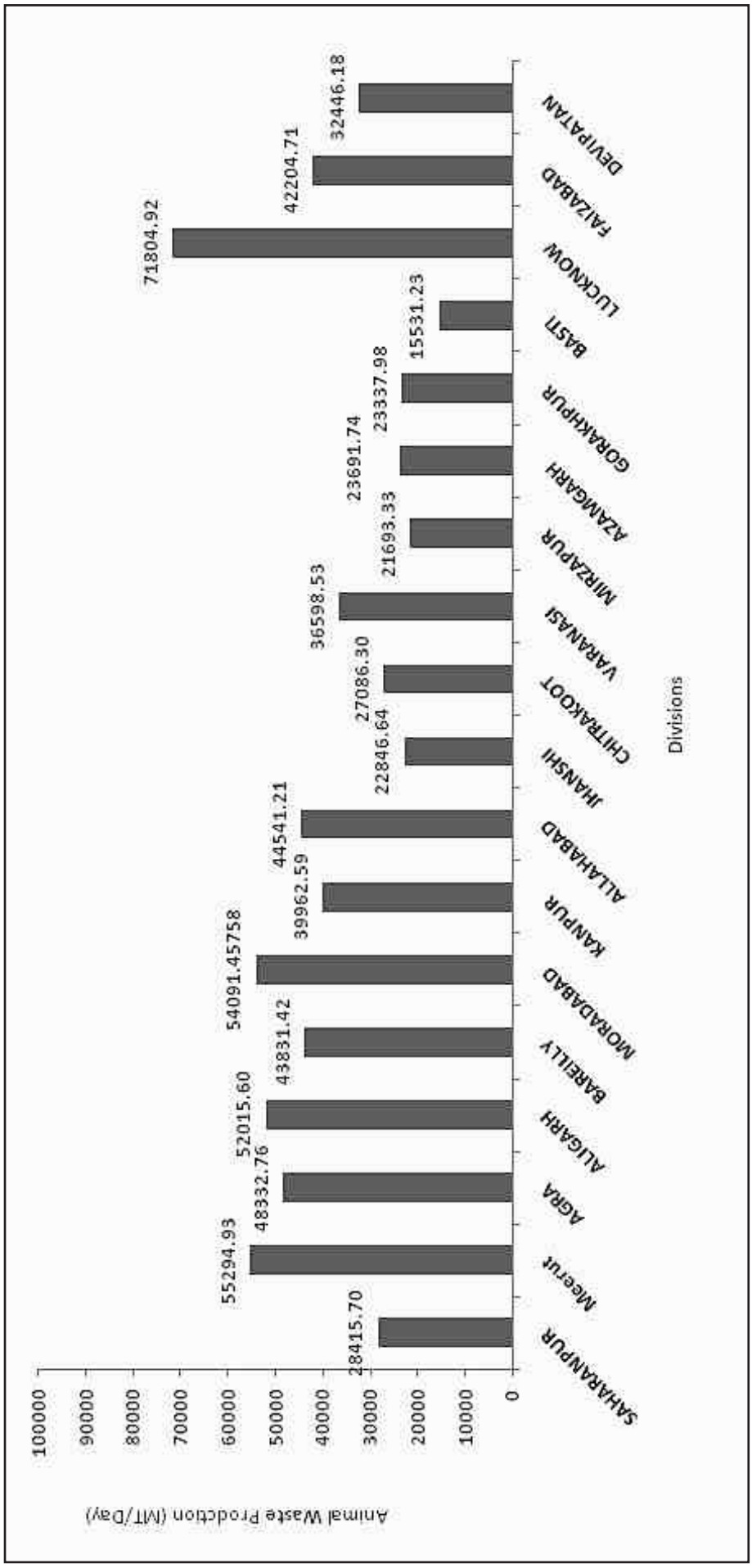
DEVI PATAN DIVISION_ SHRAVASTI DISTRICT - 75													
CROP RESIDUE ANALYSIS													
Sr. No.	Crop	Area(Hact)	Production (MT)	Productivity (Qtl/ha)	Straw	Husk	Stalk	Pod	Shell	Cob	Bagasses	Top and leaves	Total Residue (MT)
1	Rice	72532	141437	1.95	212155.5	28287.4	212155.5						452598.4
2	Wheat	70143	186300	2.66			279450	55890					335340
3	Bajra	1	2	2.00		0.6	4			0.66			5.26
4	Barley	98	173	0.00			224.9						224.9
5	Jowar	7	26	0.00		5.2	44.2			13			62.4
6	Linseed	0	0	0.00			0						0
7	Groundnut	75	51	0.68			102		15.3				117.3
8	Sunflower	0	0	0.00			0						0
9	Arhar	1424	939	0.66			2347.5						2347.5
10	Lentil	16805	11881	0.71			21385.8						21385.8
11	Gram	168	165	0.98			181.5						181.5
12	Sugar cane	50171	318700	6.35							105171	15935	121106
13	Maize	7033	5704	0.81			11408			1711.2			13119.2
14	Rape Seed and Mustard	2672	1918	0.717814371			4809.6						4809.6
15	Til (Sesame)	646	196	0.30			235.2						235.2
16	Moong	0	0	0.00			0						0
17	Urad	402	117	0.29			442.2						442.2
	Total												**951975.26**

Animal Husbandry Waste Production

Category wise Animal Waste Production / Head / Day

Animal	Waste/dung excretion (kg/d/head)
Cow	10
Buffalo	15
Sheep	1.5
Goat	1.3
Pig	2.25
Poultry	0.18

Division wise animal waste production

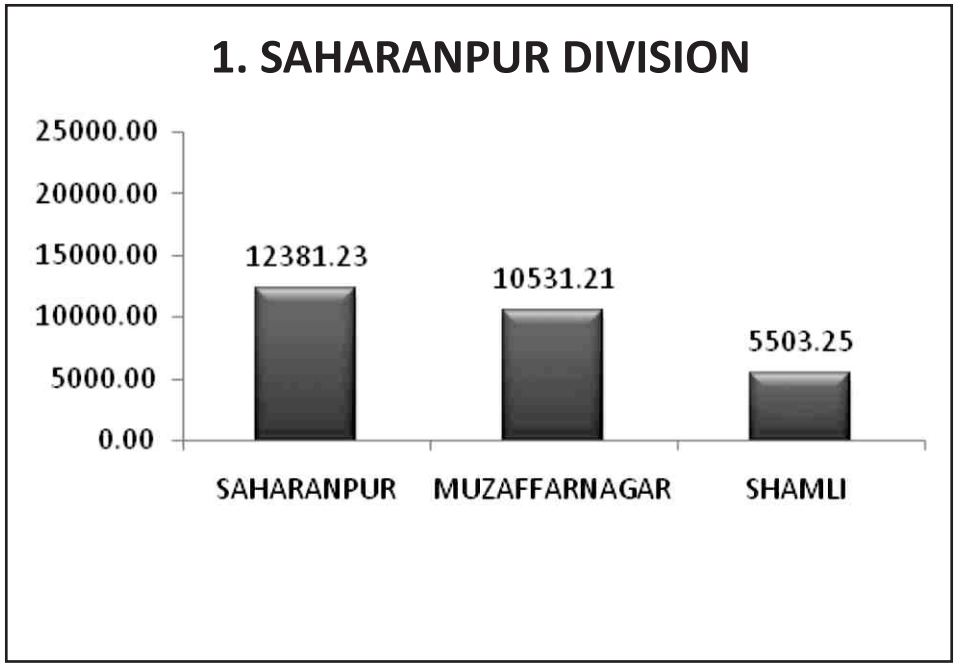


ANIMAL WASTE PRODUCTION FROM DIFFERENT DISTRICTS OF UTTAR PRADESH

Divisions		Districts		Animal waste Production (MT/Day)
1	SAHARANPUR	1	SAHARANPUR	12336.56
		2	MUZAFFARNAGAR	10494.29
		3	SHAMLI	5498.1
2	MEERUT	4	MEERUT	11516.42
		5	BAGHPAT	7290.75
		6	BULAND SHAHAR	21207.07
		7	GHAZIABAD	5102.88
		8	GAUTAM BUDDH NAGAR	4827.27
		9	HAPUR	5246.14
3	ALIGARH	10	ALIGARH	19268.65
		11	HATHRAS	7624.4
		12	ETAH	11903.6
		13	KASHGANJ	13142.99
4	AGARA	14	AGRA	16584.25
		15	MATHURA	14283.58
		16	FIROZABAD	9173.82
		17	MAINPURI	8207.75
5	BARIELY	18	BAREILLY	12477.41
		19	BADAYUN	1312.44
		20	SHAHJAHANPUR	10563.35
		21	PILIBHIT	5680.75
6	MORADABAD	22	BIJNOR	13228.8
		23	MORADABAD	10111.63
		24	AMROHA	11478.06
		25	RAMPUR	8396.92
		26	SAMBHAL	10582.24
7	KANPUR	27	FARRUKHABAD	5700.5
		28	KANNAUJ	6526.02
		29	ETAWAH	6082.23
		30	AURAIYA	5227.86
		31	KANPUR NAGAR	8026.45
		32	KANPUR DEHAT	8262.24
8	ALLAHABAD	33	FATEHPUR	12933.46
		34	ALLAHABAD	16470.81
		35	KAUSHAMBI	5370.8
		36	PRATAPGARH	9594.03

9	JHANSI	37	JHANSHI	7652.55
		38	LALITPUR	8577.5
		39	JALAUN	6540.61
10	CHITRAKOOT	40	HAMIRPUR	6124.49
		41	MAHOBA	4601.76
		42	BANDA	8908.56
		43	CHITRAKOOT	7179.62
11	VARANASI	44	VARANASI	7086.85
		45	CHANDAULI	5567.29
		46	GHAZIPUR	11511.82
		47	JAUNPUR	12157.65
12	MIRZAPUR	48	MIRZAPUR	8428.46
		49	SONBHADRA	8583.24
		50	BHADOHI	4437.06
13	AZAMGARH	51	AZAMGARGH	12458.28
		52	MAU	4498.93
		53	BALLIA	6517.62
14	GORAKHPUR	54	GORAKHPUR	7381.98
		55	MAHRAJGANJ	3974.18
		56	DEORIA	5545.83
		57	KUSHINAGAR	6085.21
15	BASTI	58	BASTI	6791.98
		59	SIDDHARTHNAGAR	5551.5
		60	SANT KABIR NAGAR	3063.93
16	LUCKNOW	61	LUCKNOW	7219.01
		62	UNNAO	11957.75
		63	RAEBARELI	9378.56
		64	SITAPUR	12659.88
		65	HARDOI	15000.46
		66	LAKHIMPUR-KHERI	15226.27
17	FAIZABAD	67	FAIZABAD	8447.31
		68	AMBEDKAR NAGAR	6830.79
		69	SULTANPUR	8259.23
		70	BARABANKI	10504.79
		71	AMETHI	7923.99
18	DEVIPATAN	72	GONDA	11009.23
		73	BALRAMPUR	5484.87
		74	BAHRAICH	11573.09
		75	SHRAVASTI	4177.82
UTTAR PRADESH				666614.47

SAHARANPUR DIVISION



All the data is taken as MT/Day

SAHARANPUR DIVISION- DISTRICT 01 - SAHARANPUR

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	147155	10	1471.55
2	Indian Breed	113197	10	1131.97
3	Buffalo	633988	15	9509.82
4	Sheep	25812	1.5	38.718
5	Goats	97072	1.3	126.19
6	Pigs	25913	2.25	58.30
7	Poultry	248193	0.18	44.67
Total				**12381.23**

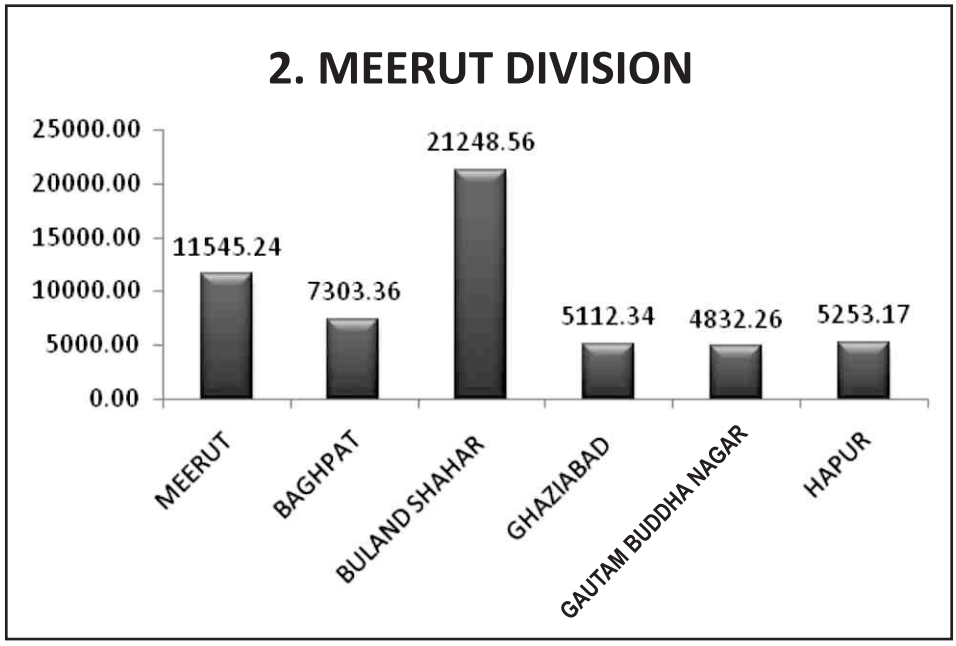
SAHARANPUR DIVISION- DISTRICT 02- MUZAFFARNAGAR

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	166413	10	1664.13
2	Indian Breed	41552	10	415.52
3	Buffalo	552906	15	8293.59
4	Sheep	8396	1.5	12.59
5	Goats	47578	1.3	61.85
6	Pigs	20714	2.25	46.61
7	Poultry	205089	0.18	36.92
Total				**10531.21**

SAHARANPUR DIVISION- DISTRICT 03- SHAMLI

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	66564	10	665.64
2	Indian Breed	19650	10	196.5
3	Buffalo	304719	15	4570.79
4	Sheep	3882	1.5	5.82
5	Goats	28049	1.3	36.46
6	Pigs	10171	2.25	22.88
7	Poultry	28656	0.18	5.16
Total				**5503.25**

MEERUT DIVISION



All the data is taken as MT/Day

MEERUT DIVISION- DISTRICT 04- MEERUT

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	129279	10	1292.79
2	Indian Breed	35922	10	359.22
3	Buffalo	648195	15	9722.93
4	Sheep	4120	1.5	6.18
5	Goats	76554	1.3	99.52
6	Pigs	15903	2.25	35.78
7	Poultry	160150	0.18	28.83
Total				**11545.24**

MEERUT DIVISION- DISTRICT 05- BAGPAT

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	81122	10	811.22
2	Indian Breed	17826	10	178.26
3	Buffalo	416229	15	6243.44
4	Sheep	2850	1.5	4.28
5	Goats	23712	1.3	30.83
6	Pigs	10103	2.25	22.73
7	Poultry	70068	0.18	12.61
Total				**7303.36**

MEERUT DIVISION- DISTRICT 06- BULANDSHAHAR

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	138446	10	1384.46
2	Indian Breed	86109	10	861.09
3	Buffalo	1243648	15	18654.72
4	Sheep	3135	1.5	4.70
5	Goats	199186	1.3	258.94
6	Pigs	19179	2.25	43.15
7	Poultry	230518	0.18	41.49
Total				**21248.56**

MEERUT DIVISION- DISTRICT 07- GHAZIABAD

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	45067	10	450.67
2	Indian Breed	17146	10	171.46
3	Buffalo	294845	15	4422.68
4	Sheep	881	1.5	1.32
5	Goats	32726	1.3	42.54
6	Pigs	6317	2.25	14.21
7	Poultry	52555	0.18	9.46
Total				**5112.34**

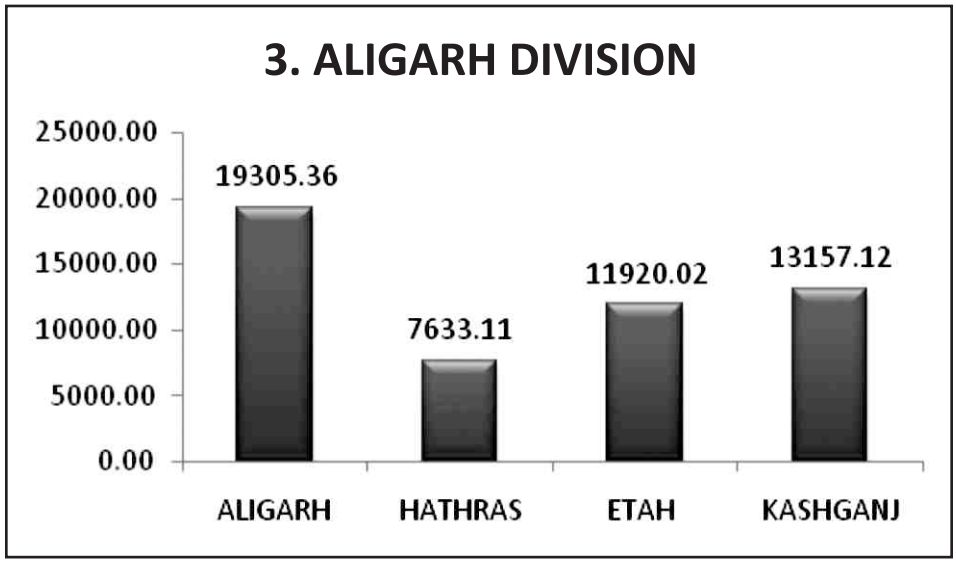
MEERUT DIVISION- DISTRICT 08- GAUTAM BUDDHA NAGAR

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	22412	10	224.12
2	Indian Breed	24187	10	241.87
3	Buffalo	287545	15	4313.18
4	Sheep	2317	1.5	3.48
5	Goats	21933	1.3	28.51
6	Pigs	7161	2.25	16.11
7	Poultry	27728	0.18	4.99
Total				**4832.26**

MEERUT DIVISION- DISTRICT 09- HAPUR

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	56377	10	563.77
2	Indian Breed	16609	10	166.09
3	Buffalo	296999	15	4454.99
4	Sheep	1335	1.5	2.00
5	Goats	37523	1.3	48.78
6	Pigs	4672	2.25	10.51
7	Poultry	39057	0.18	7.03
Total				**5253.17**

ALIGARH DIVISION



All the data is taken as MT/Day

ALIGARH DIVISION- DISTRICT 10- ALIGARH

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	66919	10	669.19
2	Indian Breed	135951	10	1359.51
3	Buffalo	1130409	15	16956.14
4	Sheep	10463	1.5	15.69
5	Goats	173119	1.3	225.05
6	Pigs	19140	2.25	43.07
7	Poultry	203924	0.18	36.71
Total				**19305.36**

ALIGARH DIVISION- DISTRICT 11- HATHRAS

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	26708	10	267.08
2	Indian Breed	36524	10	365.24
3	Buffalo	455033	15	6825.50
4	Sheep	11203	1.5	16.80
5	Goats	89437	1.3	116.27
6	Pigs	14894	2.25	33.51
7	Poultry	48399	0.18	8.71
Total				**7633.11**

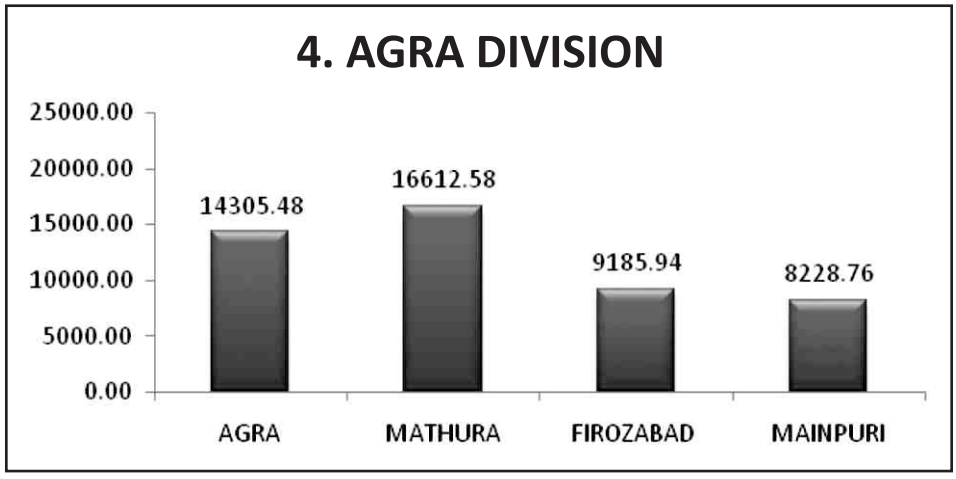
ALIGARH DIVISION- DISTRICT 12- ETAH

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	23536	10	235.36
2	Indian Breed	122265	10	1222.65
3	Buffalo	663276	15	9949.14
4	Sheep	3745	1.5	5.62
5	Goats	346504	1.3	450.46
6	Pigs	17947	2.25	40.38
7	Poultry	91200	0.18	16.42
Total				**11920.02**

ALIGARH DIVISION- DISTRICT 13- KASHGANJ

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	10081	10	100.81
2	Indian Breed	87768	10	877.68
3	Buffalo	792690	15	11890.35
4	Sheep	7441	1.5	11.16
5	Goats	184495	1.3	239.84
6	Pigs	10288	2.25	23.15
7	Poultry	78474	0.18	14.13
Total				**13157.12**

AGRA DIVISION



All the data is taken as MT/Day

AGRA DIVISION- DISTRICT 14- AGRA

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	25595	10	255.95
2	Indian Breed	200591	10	2005.91
3	Buffalo	781969	15	11729.54
4	Sheep	38909	1.5	58.36
5	Goats	128987	1.3	167.68
6	Pigs	29394	2.25	66.14
7	Poultry	121678	0.18	21.90
Total				**14305.48**

AGRA DIVISION- DISTRICT 15- MATHURA

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	58920	10	589.2
2	Indian Breed	152044	10	1520.44
3	Buffalo	927781	15	13916.72
4	Sheep	50234	1.5	75.35
5	Goats	304616	1.3	396.00
6	Pigs	38464	2.25	86.54
7	Poultry	157409	0.18	28.33
Total				**16612.58**

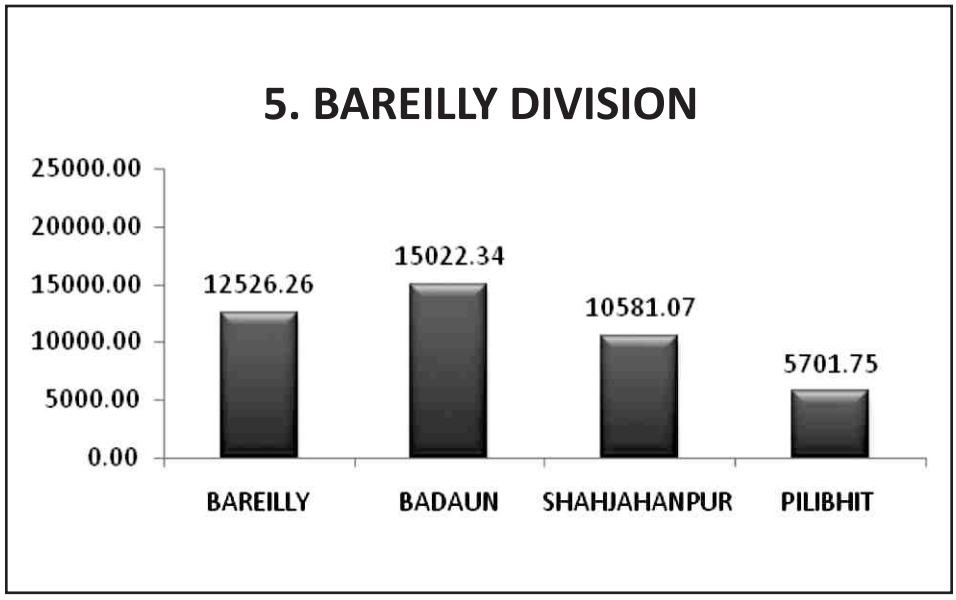
AGRA DIVISION- DISTRICT 16- FIROZABAD

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	16047	10	160.47
2	Indian Breed	82922	10	829.22
3	Buffalo	523210	15	7848.15
4	Sheep	5218	1.5	7.83
5	Goats	226343	1.3	294.25
6	Pigs	15068	2.25	33.90
7	Poultry	67375	0.18	12.13
Total				**9185.94**

AGRA DIVISION- DISTRICT 17- MAINPURI

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	11064	10	110.64
2	Indian Breed	75405	10	754.05
3	Buffalo	465225	15	6978.38
4	Sheep	16275	1.5	24.41
5	Goats	241819	1.3	314.36
6	Pigs	11213	2.25	25.23
7	Poultry	120465	0.18	21.68
Total				**8228.76**

BAREILLY DIVISION



All the data is taken as MT/Day

BAREILLEY DIVISION- DISTRICT 18- BAREILLEY

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	29377	10	293.77
2	Indian Breed	232618	10	2326.18
3	Buffalo	637489	15	9562.34
4	Sheep	3389	1.5	5.08
5	Goats	198296	1.3	257.78
6	Pigs	14337	2.25	32.26
7	Poultry	271388	0.18	48.85
Total				**12526.26**

BAREILLEY DIVISION- DISTRICT 19- BADAYUN

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	23743	10	237.43
2	Indian Breed	238233	10	2382.33
3	Buffalo	802012	15	12030.18
4	Sheep	13911	1.5	20.87
5	Goats	205595	1.3	267.27
6	Pigs	18765	2.25	42.22
7	Poultry	233561	0.18	42.04
Total				**15022.34**

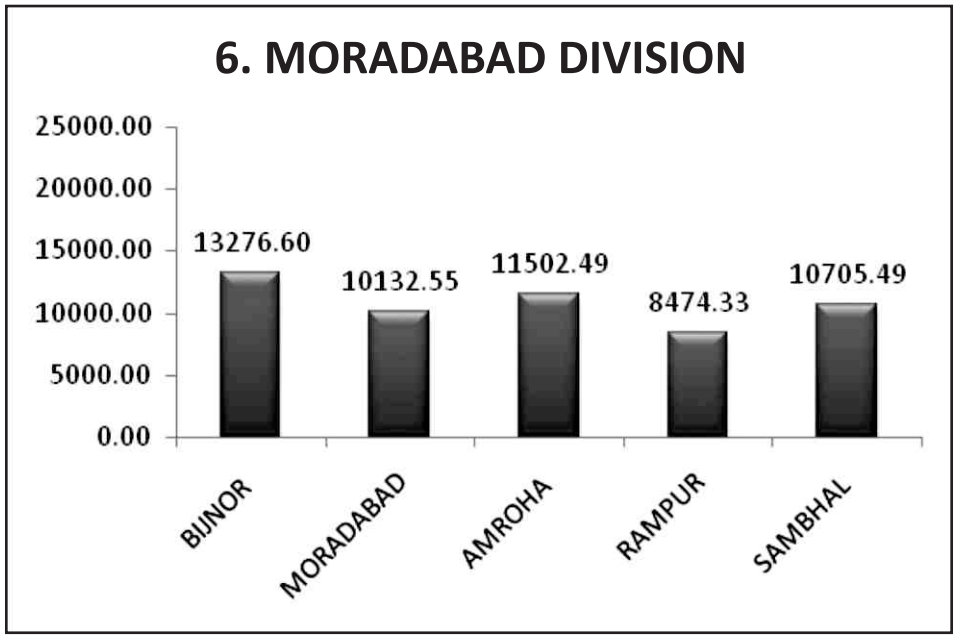
BAREILLEY DIVISION- DISTRICT 20- SHAHJAHANPUR

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	21244	10	212.44
2	Indian Breed	267234	10	2672.34
3	Buffalo	490227	15	7353.41
4	Sheep	4832	1.5	7.25
5	Goats	203681	1.3	264.79
6	Pigs	23612	2.25	53.13
7	Poultry	98490	0.18	17.73
Total				**10581.07**

BAREILLEY DIVISION- DISTRICT 21- PILIBHIT

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	13975	10	139.75
2	Indian Breed	137850	10	1378.5
3	Buffalo	268058	15	4020.87
4	Sheep	1213	1.5	1.82
5	Goats	97617	1.3	126.90
6	Pigs	5738	2.25	12.91
7	Poultry	116633	0.18	20.99
Total				**5701.75**

MORADABAD DIVISION



All the data is taken as MT/Day

MORODABAD DIVISION- DISTRICT 22- BIJNOR

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	95083	10	950.83
2	Indian Breed	208313	10	2083.13
3	Buffalo	663348	15	9950.22
4	Sheep	7704	1.5	11.56
5	Goats	137355	1.3	178.56
6	Pigs	24222	2.25	54.50
7	Poultry	265579	0.18	47.80
Total				**13276.60**

MORODABAD DIVISION- DISTRICT 23- MORADABAD

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	82646	10	826.46
2	Indian Breed	99919	10	999.19
3	Buffalo	532194	15	7982.91
4	Sheep	4302	1.5	6.45
5	Goats	208768	1.3	271.40
6	Pigs	11209	2.25	25.22
7	Poultry	116205	0.18	20.92
Total				**10132.55**

MORODABAD DIVISION- DISTRICT 24- AMROHA

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	57107	10	571.07
2	Indian Breed	92395	10	923.95
3	Buffalo	657945	15	9869.18
4	Sheep	1480	1.5	2.22
5	Goats	74252	1.3	96.53
6	Pigs	6718	2.25	15.12
7	Poultry	135715	0.18	24.43
Total				**11502.49**

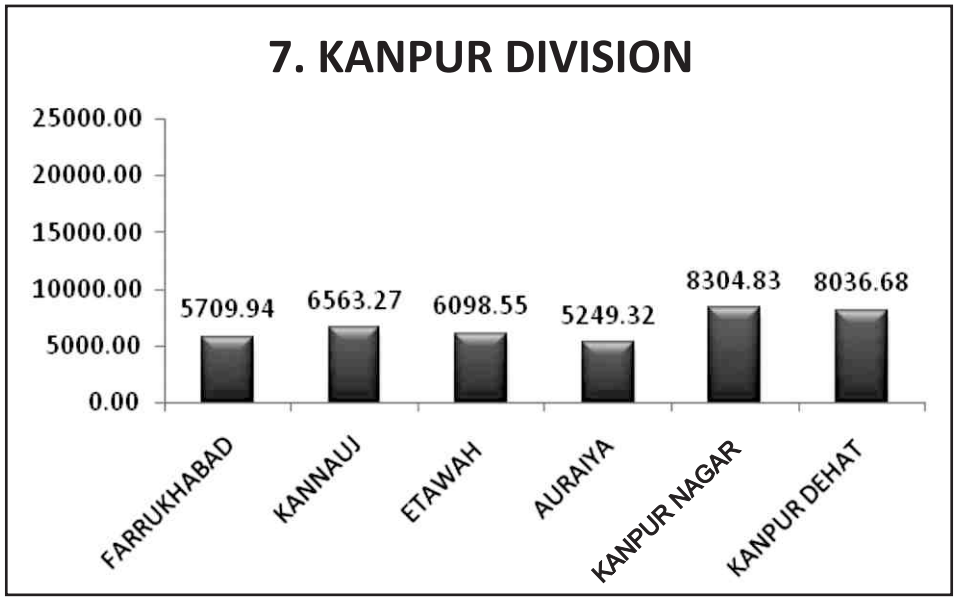
MORODABAD DIVISION- DISTRICT 25- RAMPUR

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	34164	10	341.64
2	Indian Breed	124499	10	1244.99
3	Buffalo	440816	15	6612.24
4	Sheep	8115	1.5	12.17
5	Goats	127174	1.3	165.33
6	Pigs	9133	2.25	20.55
7	Poultry	430053	0.18	77.41
Total				**8474.33**

MORODABAD DIVISION- DISTRICT 26- SAMBHAL

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	58591	10	585.91
2	Indian Breed	122360	10	1223.6
3	Buffalo	578606	15	8679.09
4	Sheep	3656	1.5	5.48
5	Goats	127239	1.3	165.41
6	Pigs	10108	2.25	22.74
7	Poultry	129199	0.18	23.26
Total				**10705.49**

KANPUR DIVISION



All the data is taken as MT/Day

KANPUR DIVISION- DISTRICT 27- FARRUKHBAD

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	33843	10	338.43
2	Indian Breed	78973	10	789.73
3	Buffalo	290853	15	4362.80
4	Sheep	13475	1.5	20.21
5	Goats	127048	1.3	165.16
6	Pigs	10743	2.25	24.17
7	Poultry	52441	0.18	9.44
Total				**5709.94**

KANPUR DIVISION- DISTRICT 28- KANNAUJ

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	30439	10	304.39
2	Indian Breed	100427	10	1004.27
3	Buffalo	322664	15	4839.96
4	Sheep	12380	1.5	18.57
5	Goats	254623	1.3	331.01
6	Pigs	12365	2.25	27.82
7	Poultry	206946	0.18	37.25
Total				**6563.27**

KANPUR DIVISION- DISTRICT 29- ETAWAH

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	15197	10	151.97
2	Indian Breed	112263	10	1122.63
3	Buffalo	292683	15	4390.25
4	Sheep	5151	1.5	7.73
5	Goats	299505	1.3	389.36
6	Pigs	9022	2.25	20.30
7	Poultry	90702	0.18	16.33
Total				**6098.55**

KANPUR DIVISION- DISTRICT 30- AURAIYA

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	8936	10	89.36
2	Indian Breed	94074	10	940.74
3	Buffalo	254465	15	3816.98
4	Sheep	9621	1.5	14.43
5	Goats	262822	1.3	341.67
6	Pigs	10973	2.25	24.69
7	Poultry	119175	0.18	21.45
Total				**5249.32**

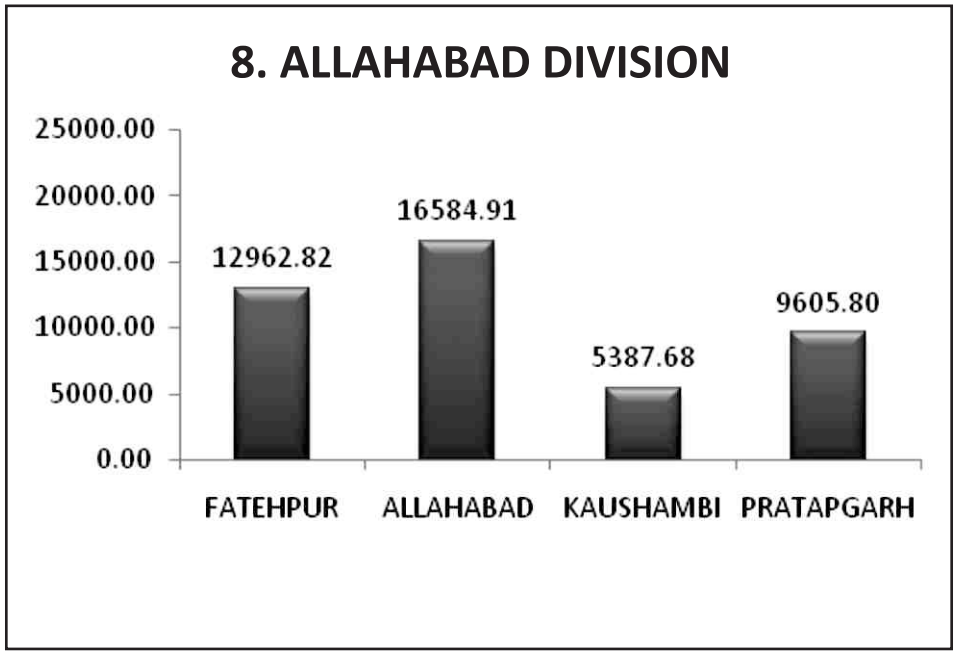
KANPUR DIVISION- DISTRICT 31- KANPUR NAGAR

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	17736	10	177.36
2	Indian Breed	160384	10	1603.84
3	Buffalo	397937	15	5969.06
4	Sheep	16522	1.5	24.78
5	Goats	352829	1.3	458.68
6	Pigs	12678	2.25	28.53
7	Poultry	236602	0.18	42.59
Total				**8304.83**

KANPUR DIVISION- DISTRICT 32- KANPUR DEHAT

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	49272	10	492.72
2	Indian Breed	146425	10	1464.25
3	Buffalo	374077	15	5611.16
4	Sheep	9014	1.5	13.52
5	Goats	243810	1.3	316.95
6	Pigs	56824	2.25	127.85
7	Poultry	56824	0.18	10.23
Total				**8036.68**

ALLAHABAD DIVISION



All the data is taken as MT/Day

ALLAHABD DIVISION- DISTRICT 33- FATEHPUR

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	15587	10	155.87
2	Indian Breed	305309	10	3053.09
3	Buffalo	593656	15	8904.84
4	Sheep	124204	1.5	186.31
5	Goats	397323	1.3	516.52
6	Pigs	51926	2.25	116.83
7	Poultry	163119	0.18	29.36
Total				**12962.82**

ALLAHABD DIVISION- DISTRICT 34- ALLAHABAD

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	148778	10	1487.78
2	Indian Breed	550639	10	5506.39
3	Buffalo	584550	15	8768.25
4	Sheep	128452	1.5	192.68
5	Goats	299979	1.3	389.97
6	Pigs	55885	2.25	125.74
7	Poultry	633881	0.18	114.10
Total				**16584.91**

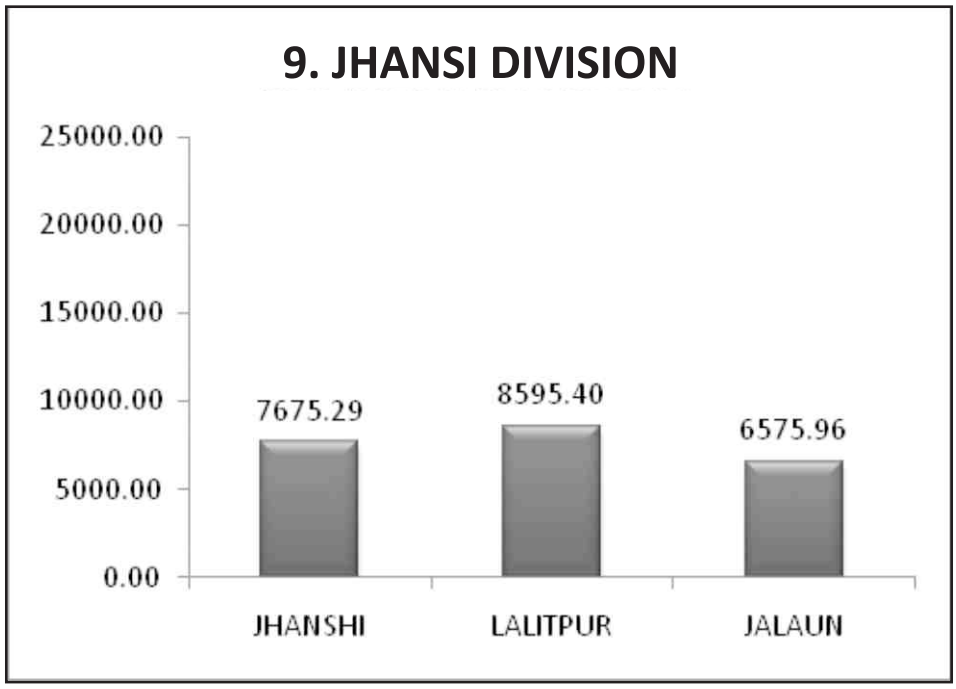
ALLAHABD DIVISION- DISTRICT 35- KAUSHAMBI

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	12338	10	123.38
2	Indian Breed	151048	10	1510.48
3	Buffalo	220933	15	3314.00
4	Sheep	33229	1.5	49.84
5	Goats	211425	1.3	274.85
6	Pigs	43667	2.25	98.25
7	Poultry	93779	0.18	16.88
Total				**5387.68**

ALLAHABD DIVISION- DISTRICT 36- PRATAPGARH

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	90756	10	907.56
2	Indian Breed	287362	10	2873.62
3	Buffalo	356180	15	5342.70
4	Sheep	1886	1.5	2.83
5	Goats	263750	1.3	342.88
6	Pigs	43938	2.25	98.86
7	Poultry	207543	0.18	37.36
Total				**9605.80**

JHANSI DIVISION



All the data is taken as MT/Day

JHANSHI DIVISION- DISTRICT 37- JHANSHI

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	2547	10	25.47
2	Indian Breed	349966	10	3499.66
3	Buffalo	242949	15	3644.24
4	Sheep	53479	1.5	80.22
5	Goats	294216	1.3	382.48
6	Pigs	9105	2.25	20.49
7	Poultry	126351	0.18	22.74
Total				**7675.29**

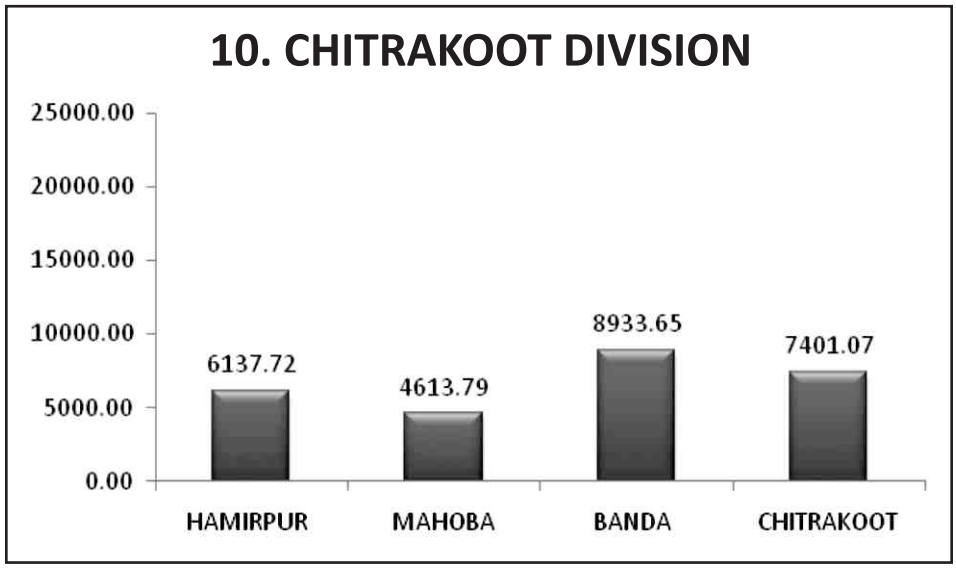
JHANSHI DIVISION- DISTRICT 38- LALITPUR

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	1747	10	17.47
2	Indian Breed	481286	10	4812.86
3	Buffalo	234855	15	3522.83
4	Sheep	8203	1.5	12.30
5	Goats	156838	1.3	203.89
6	Pigs	3623	2.25	8.15
7	Poultry	99414	0.18	17.89
Total				**8595.40**

JHANSHI DIVISION- DISTRICT 39- JALAUN

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	7479	10	74.79
2	Indian Breed	217476	10	2174.76
3	Buffalo	256282	15	3844.23
4	Sheep	28887	1.5	43.33
5	Goats	267994	1.3	348.39
6	Pigs	24530	2.25	55.19
7	Poultry	195889	0.18	35.26
Total				**6575.96**

CHITRAKOOT DIVISION



All the data is taken as MT/Day

CHITRKOOT DIVISION- DISTRICT 40- HAMIRPUR

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	635	10	6.35
2	Indian Breed	268878	10	2688.78
3	Buffalo	199537	15	2993.06
4	Sheep	16413	1.5	24.62
5	Goats	291825	1.3	379.37
6	Pigs	14362	2.25	32.31
7	Poultry	73488	0.18	13.23
Total				**6137.72**

CHITRKOOT DIVISION- DISTRICT 41- MAHOBA

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	446	10	4.46
2	Indian Breed	227581	10	2275.81
3	Buffalo	136008	15	2040.12
4	Sheep	14586	1.5	21.88
5	Goats	162623	1.3	211.41
6	Pigs	21371	2.25	48.08
7	Poultry	66813	0.18	12.03
Total				**4613.79**

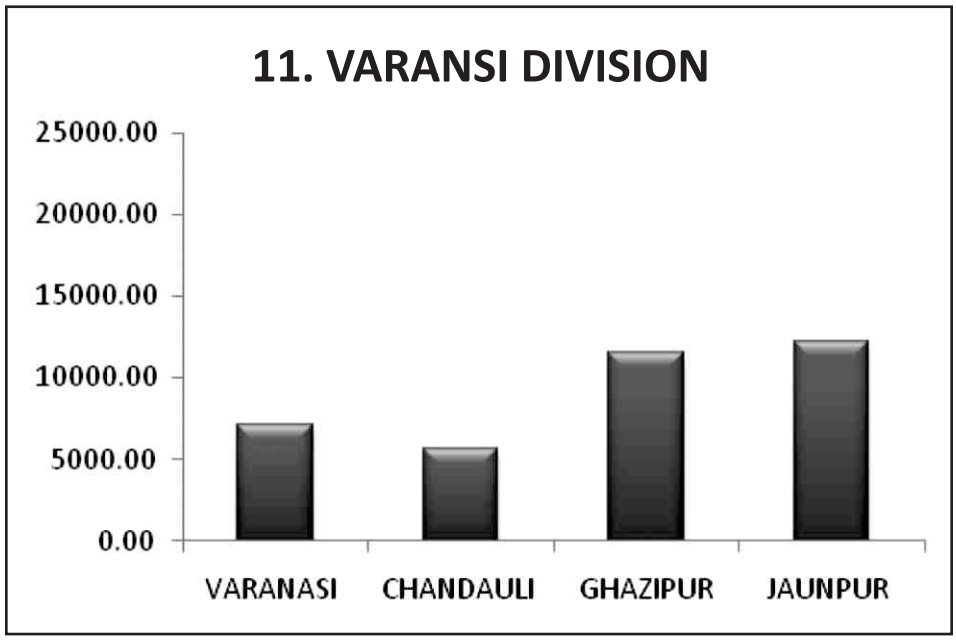
CHITRKOOT DIVISION- DISTRICT 42-BANDA

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	720	10	7.2
2	Indian Breed	370789	10	3707.89
3	Buffalo	324091	15	4861.37
4	Sheep	12259	1.5	18.39
5	Goats	210916	1.3	274.19
6	Pigs	17566	2.25	39.52
7	Poultry	139394	0.18	25.09
Total				**8933.65**

CHITRKOOT DIVISION- DISTRICT 43- CHITRAKOOT

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	2513	10	25.13
2	Indian Breed	418819	10	4188.19
3	Buffalo	183268	15	2749.02
4	Sheep	20213	1.5	30.32
5	Goats	125317	1.3	162.91
6	Pigs	106888	2.25	240.50
7	Poultry	27789	0.18	5.00
Total				**7401.07**

VARANASI DIVISION



All the data is taken as MT/Day

VARANASI DIVISION- DISTRICT 44- VARANASI

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	53050	10	530.5
2	Indian Breed	187661	10	1876.61
3	Buffalo	295072	15	4426.08
4	Sheep	16061	1.5	24.09
5	Goats	162090	1.3	210.72
6	Pigs	8379	2.25	18.85
7	Poultry	294891	0.18	53.08
Total				**7139.93**

VARANASI DIVISION- DISTRICT 45- CHANDAULI

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	42284	10	422.84
2	Indian Breed	162592	10	1625.92
3	Buffalo	221726	15	3325.89
4	Sheep	30320	1.5	45.48
5	Goats	98838	1.3	128.49
6	Pigs	8298	2.25	18.67
7	Poultry	407514	0.18	73.35
Total				**5640.64**

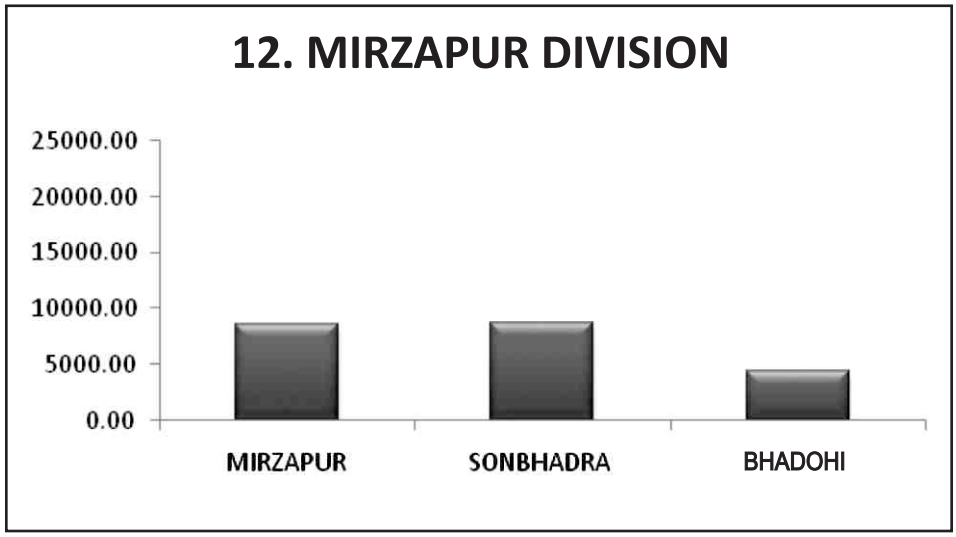
VARANASI DIVISION- DISTRICT 46- GHAZIPUR

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	56124	10	561.24
2	Indian Breed	325767	10	3257.67
3	Buffalo	478776	15	7181.64
4	Sheep	56624	1.5	84.94
5	Goats	307656	1.3	399.95
6	Pigs	11727	2.25	26.39
7	Poultry	375961	0.18	67.67
Total				**11579.50**

VARANASI DIVISION- DISTRICT 47- JAUNPUR

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	141816	10	1418.16
2	Indian Breed	330428	10	3304.28
3	Buffalo	464499	15	6967.49
4	Sheep	42555	1.5	63.83
5	Goats	267452	1.3	347.69
6	Pigs	24928	2.25	56.09
7	Poultry	449593	0.18	80.93
Total				**12238.46**

MIRZAPUR DIVISION



All the data is taken as MT/Day

MIRZAPUR DIVISION- DISTRICT 48- MIRZAPUR

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	91273	10	912.73
2	Indian Breed	335641	10	3356.41
3	Buffalo	251180	15	3767.70
4	Sheep	88722	1.5	133.08
5	Goats	167168	1.3	217.32
6	Pigs	18321	2.25	41.22
7	Poultry	806606	0.18	145.19
Total				**8573.65**

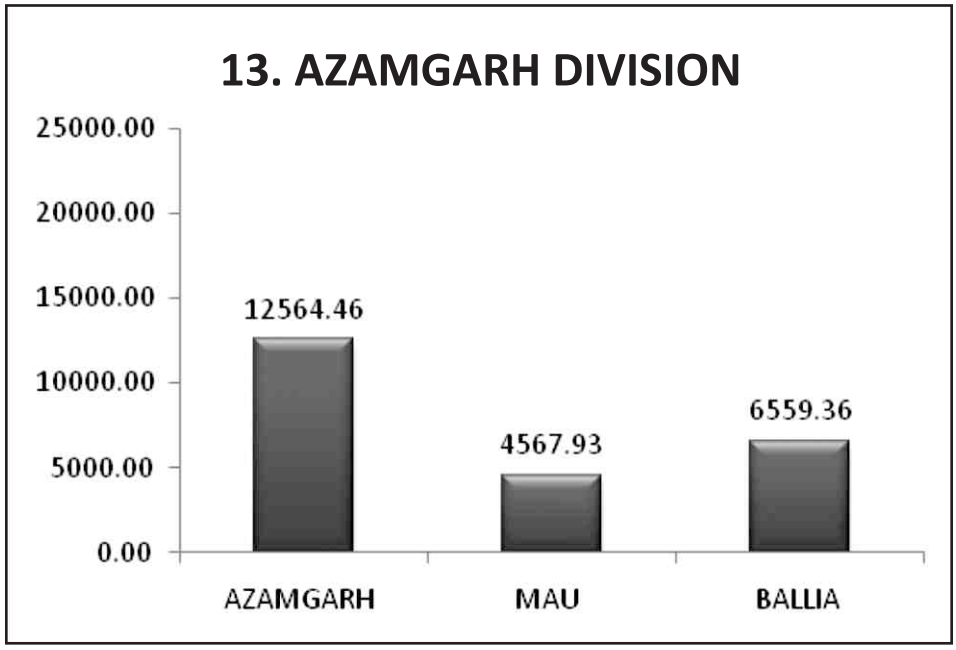
MIRZAPUR DIVISION- DISTRICT 49- SONBHADRA

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	15113	10	151.13
2	Indian Breed	460780	10	4607.8
3	Buffalo	225214	15	3378.21
4	Sheep	30408	1.5	45.61
5	Goats	291942	1.3	379.52
6	Pigs	9318	2.25	20.97
7	Poultry	451445	0.18	81.26
Total				**8664.50**

MIRZAPUR DIVISION- DISTRICT 50- BHADOHI

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	92084	10	920.84
2	Indian Breed	117835	10	1178.35
3	Buffalo	144578	15	2168.67
4	Sheep	38096	1.5	57.14
5	Goats	74123	1.3	96.36
6	Pigs	6977	2.25	15.70
7	Poultry	100652	0.18	18.12
Total				**4455.18**

AZAMGARH DIVISION



All the data is taken as MT/Day

AZAMGARH DIVISION- DISTRICT 51- AZAMGARH

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	142876	10	1428.76
2	Indian Breed	396897	10	3968.97
3	Buffalo	438385	15	6575.78
4	Sheep	14462	1.5	21.69
5	Goats	311608	1.3	405.09
6	Pigs	25773	2.25	57.99
7	Poultry	589877	0.18	106.18
Total				**12564.46**

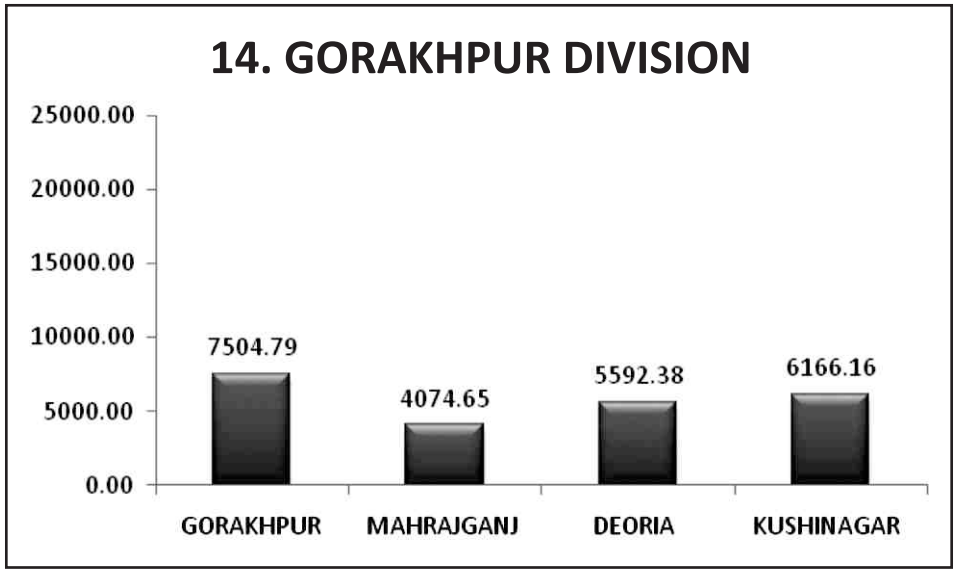
AZAMGARH DIVISION- DISTRICT 52- MAU

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	28096	10	280.96
2	Indian Breed	132398	10	1323.98
3	Buffalo	174986	15	2624.79
4	Sheep	6608	1.5	9.91
5	Goats	175568	1.3	228.24
6	Pigs	13800	2.25	31.05
7	Poultry	383352	0.18	69.00
Total				**4567.93**

AZAMGARH DIVISION- DISTRICT 53- BALLIA

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	84296	10	842.96
2	Indian Breed	189552	10	1895.52
3	Buffalo	233907	15	3508.61
4	Sheep	23170	1.5	34.76
5	Goats	154580	1.3	200.95
6	Pigs	15467	2.25	34.80
7	Poultry	232005	0.18	41.76
Total				**6559.36**

GORAKHPUR DIVISION



All the data is taken as MT/Day

GORAKHPUR DIVISION- DISTRICT 54- GORAKHPUR

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	102605	10	1026.05
2	Indian Breed	186160	10	1861.6
3	Buffalo	279122	15	4186.83
4	Sheep	7894	1.5	11.84
5	Goats	196224	1.3	255.09
6	Pigs	18032	2.25	40.57
7	Poultry	682246	0.18	122.80
Total				**7504.79**

GORAKHPUR DIVISION- DISTRICT 55- MAHARAJGANJ

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	33627	10	336.27
2	Indian Breed	52034	10	520.34
3	Buffalo	181832	15	2727.48
4	Sheep	3999	1.5	6.00
5	Goats	260170	1.3	338.22
6	Pigs	20388	2.25	45.87
7	Poultry	558137	0.18	100.46
Total				**4074.65**

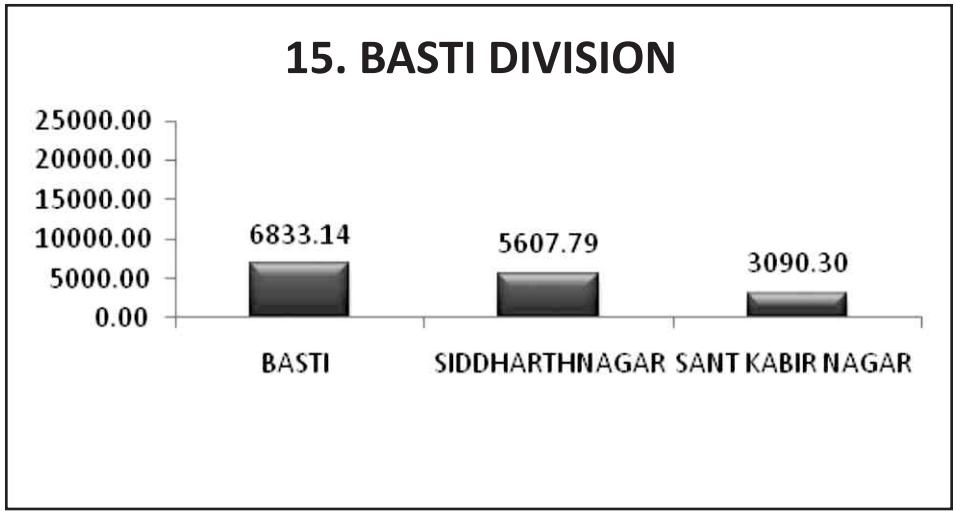
GORAKHPUR DIVISION- DISTRICT 56- DEORIA

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	110169	10	1101.69
2	Indian Breed	89928	10	899.28
3	Buffalo	211271	15	3169.07
4	Sheep	2916	1.5	4.37
5	Goats	263799	1.3	342.94
6	Pigs	12659	2.25	28.48
7	Poultry	258626	0.18	46.55
Total				**5592.38**

GORAKHPUR DIVISION- DISTRICT 57- KUSHI NAGAR

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	84394	10	843.94
2	Indian Breed	74000	10	740
3	Buffalo	269441	15	4041.62
4	Sheep	5150	1.5	7.73
5	Goats	332745	1.3	432.57
6	Pigs	8606	2.25	19.36
7	Poultry	449717	0.18	80.95
Total				**6166.16**

BASTI DIVISION



All the data is taken as MT/Day

BASTI DIVISION- DISTRICT 58- BASTI

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	55216	10	552.16
2	Indian Breed	98681	10	986.81
3	Buffalo	334153	15	5012.30
4	Sheep	7057	1.5	10.59
5	Goats	174247	1.3	226.52
6	Pigs	1602	2.25	3.60
7	Poultry	228689	0.18	41.16
Total				**6833.14**

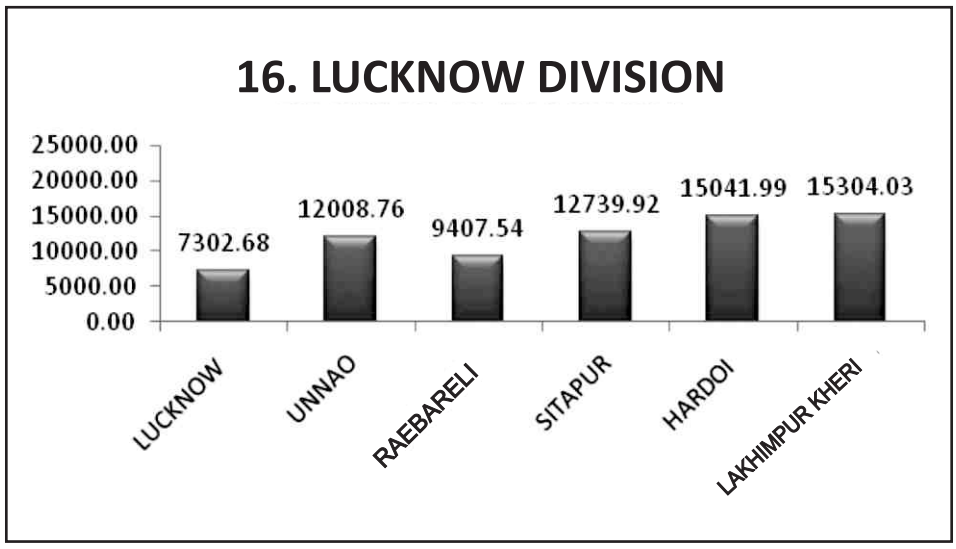
BASTI DIVISION- DISTRICT 59- SIDDHARTH NAGAR

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	6159	10	61.59
2	Indian Breed	265615	10	2656.15
3	Buffalo	167061	15	2505.92
4	Sheep	5585	1.5	8.38
5	Goats	228818	1.3	297.46
6	Pigs	9781	2.25	22.01
7	Poultry	312683	0.18	56.28
Total				**5607.79**

BASTI DIVISION- DISTRICT 60- SANT KABIR NAGAR

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	30265	10	302.65
2	Indian Breed	63305	10	633.05
3	Buffalo	132123	15	1981.85
4	Sheep	4376	1.5	6.56
5	Goats	103349	1.3	134.35
6	Pigs	2428	2.25	5.46
7	Poultry	146537	0.18	26.38
Total				**3090.30**

LUCKNOW DIVISION



All the data is taken as MT/Day

LUCKNOW DIVISION- DISTRICT 61- LUCKNOW

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	41682	10	416.82
2	Indian Breed	238458	10	2384.58
3	Buffalo	274625	15	4119.38
4	Sheep	1878	1.5	2.82
5	Goats	182769	1.3	237.60
6	Pigs	25697	2.25	57.82
7	Poultry	464834	0.18	83.67
Total				**7302.68**

LUCKNOW DIVISION- DISTRICT 62- UNNAO

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	7990	10	79.9
2	Indian Breed	373216	10	3732.16
3	Buffalo	505587	15	7583.81
4	Sheep	16155	1.5	24.23
5	Goats	367779	1.3	478.11
6	Pigs	26464	2.25	59.54
7	Poultry	283393	0.18	51.01
Total				**12008.76**

LUCKNOW DIVISION- DISTRICT 63- RAEBARELI

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	13643	10	136.43
2	Indian Breed	380229	10	3802.29
3	Buffalo	331419	15	4971.29
4	Sheep	18576	1.5	27.86
5	Goats	231258	1.3	300.64
6	Pigs	62245	2.25	140.05
7	Poultry	161007	0.18	28.98
Total				**9407.54**

LUCKNOW DIVISION- DISTRICT 64- SITAPUR

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	51128	10	511.28
2	Indian Breed	437711	10	4377.11
3	Buffalo	478970	15	7184.55
4	Sheep	2869	1.5	4.30
5	Goats	422227	1.3	548.90
6	Pigs	14996	2.25	33.74
7	Poultry	444655	0.18	80.04
Total				**12739.92**

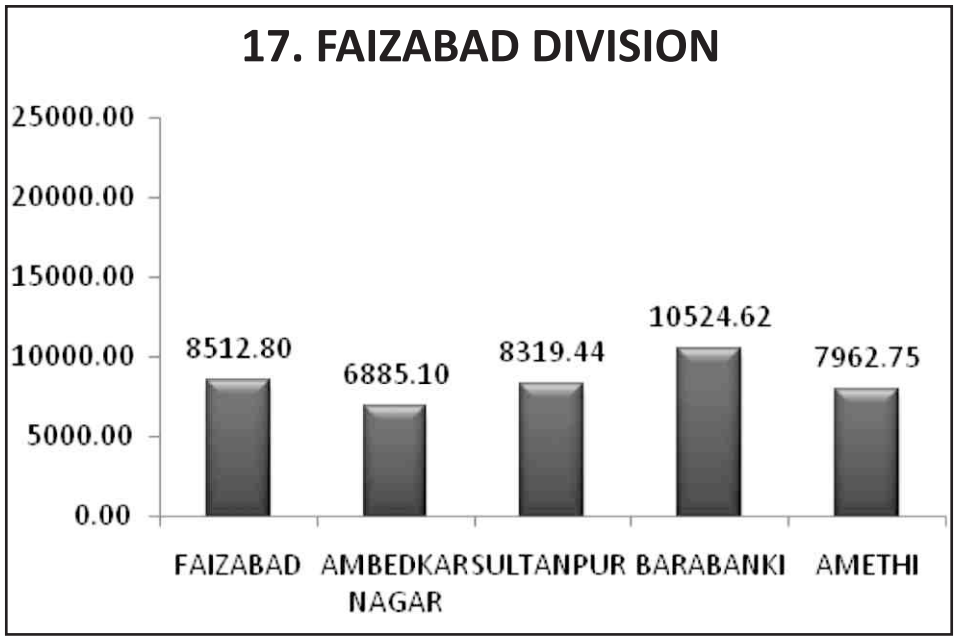
LUCKNOW DIVISION- DISTRICT 65- HARDOI

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	39546	10	395.46
2	Indian Breed	469456	10	4694.56
3	Buffalo	624238	15	9363.57
4	Sheep	20047	1.5	30.07
5	Goats	346720	1.3	450.74
6	Pigs	29362	2.25	66.06
7	Poultry	230738	0.18	41.53
Total				**15041.99**

LUCKNOW DIVISION- DISTRICT 66- LAKHIMPUR-KHERI

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	52753	10	527.53
2	Indian Breed	608285	10	6082.85
3	Buffalo	527507	15	7912.61
4	Sheep	23444	1.5	35.17
5	Goats	475579	1.3	618.25
6	Pigs	22164	2.25	49.87
7	Poultry	431978	0.18	77.76
Total				**15304.03**

FAIZABAD DIVISION



All the data is taken as MT/Day

FAIZABAD DIVISION- DISTRICT 67- FAIZABAD

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	28438	10	284.38
2	Indian Breed	351668	10	3516.68
3	Buffalo	290427	15	4356.41
4	Sheep	9091	1.5	13.64
5	Goats	186152	1.3	242.00
6	Pigs	15205	2.25	34.21
7	Poultry	363804	0.18	65.48
Total				**8512.80**

FAIZABAD DIVISION- DISTRICT 68- AMBEDKAR NAGAR

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	53743	10	537.43
2	Indian Breed	174135	10	1741.35
3	Buffalo	288813	15	4332.20
4	Sheep	13040	1.5	19.56
5	Goats	142560	1.3	185.33
6	Pigs	6634	2.25	14.93
7	Poultry	301738	0.18	54.3
Total				**6885.10**

FAIZABAD DIVISION- DISTRICT 69- SULTANPUR

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	43808	10	438.08
2	Indian Breed	345215	10	3452.15
3	Buffalo	271965	15	4079.48
4	Sheep	28121	1.5	42.18
5	Goats	178041	1.3	231.45
6	Pigs	7063	2.25	15.89
7	Poultry	334519	0.18	60.21
Total				**8319.44**

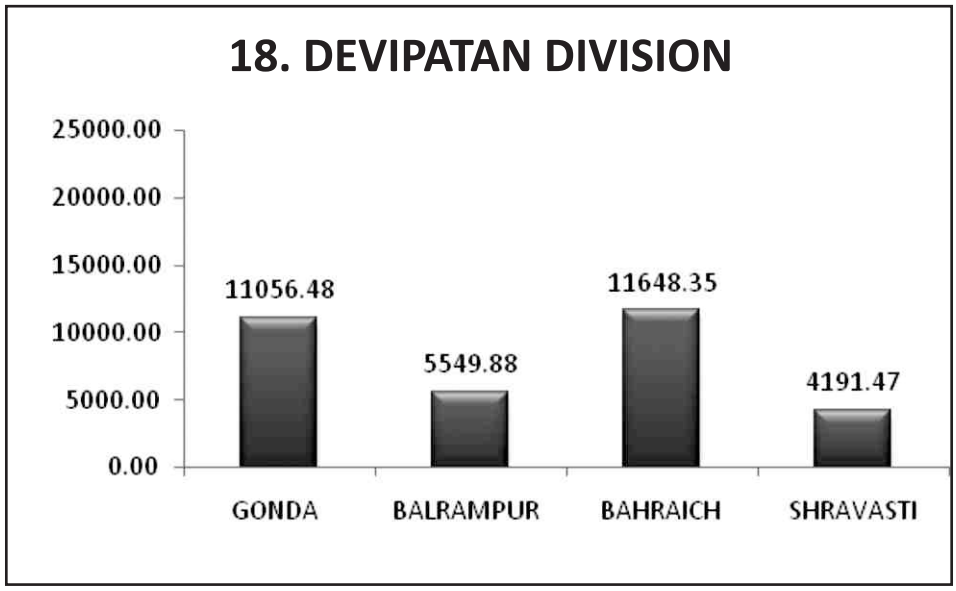
FAIZABAD DIVISION- DISTRICT 70- BARABANKI

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	15760	10	157.6
2	Indian Breed	321566	10	3215.66
3	Buffalo	445540	15	6683.10
4	Sheep	2023	1.5	3.03
5	Goats	286668	1.3	372.67
6	Pigs	15660	2.25	35.24
7	Poultry	318439	0.18	57.32
Total				**10524.62**

FAIZABAD DIVISION- DISTRICT 71- AMETHI

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	43808	10	438.08
2	Indian Breed	298104	10	2981.04
3	Buffalo	270424	15	4056.36
4	Sheep	14852	1.5	22.28
5	Goats	264080	1.3	343.30
6	Pigs	36858	2.25	82.93
7	Poultry	215344	0.18	38.76
Total				**7962.75**

DEVIPATAN DIVISION



All the data is taken as MT/Day

DEVI PATAN DIVISION- DISTRICT 72- GONDA

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	53338	10	533.38
2	Indian Breed	417166	10	4171.66
3	Buffalo	395253	15	5928.80
4	Sheep	15791	1.5	23.69
5	Goats	253326	1.3	329.32
6	Pigs	9949	2.25	22.39
7	Poultry	262516	0.18	47.25
Total				**11056.48**

DEVI PATAN DIVISION- DISTRICT 73- BALRAMPUR

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	4092	10	40.92
2	Indian Breed	269475	10	2694.75
3	Buffalo	165971	15	2489.57
4	Sheep	8297	1.5	12.45
5	Goats	173832	1.3	225.98
6	Pigs	9424	2.25	21.20
7	Poultry	361186	0.18	65.01
Total				**5549.88**

DEVI PATAN DIVISION- DISTRICT 54- BAHRAICH

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	10995	10	109.95
2	Indian Breed	525183	10	5251.83
3	Buffalo	365963	15	5489.45
4	Sheep	20087	1.5	30.13
5	Goats	502321	1.3	653.02
6	Pigs	17207	2.25	38.72
7	Poultry	418110	0.18	75.26
Total				**11648.35**

DEVI PATAN DIVISION- DISTRICT 75- SHRAVASTI

S.N.	Category of Animal	Population of Animals	Waste/dung excreation (kg/d/head)	Waste Production (MT/Day)
1	Cross Breed	2231	10	22.31
2	Indian Breed	198123	10	1981.23
3	Buffalo	130956	15	1964.34
4	Sheep	5197	1.5	7.80
5	Goats	139453	1.3	181.29
6	Pigs	9268	2.25	20.85
7	Poultry	75824	0.18	13.65
Total				**4191.47**

Possible Solutions/Utilization of Biomass

The state of Uttar Pradesh is an agricultural based economy has huge potential to agricultural biomass production. These agricultural crops and domestic animals fulfil their need of food, fodder and cooking fuels. During last two decades it has been observed that modernization in crop cultivation and advancement in crop harvesting technology leads to the production of a huge amount of crop residue.

According to an estimation about 500 Million tons of crop residue is generated in India and it is highest in UP (60 Mt) followed by Punjab (51 Mt) and Maharashtra (46 Mt). Due to labour shortage, high wage during season these residue is left in field and finally ends up with being burnt.

To deal with the problems of crop residue and its proper disposal and management, an attempt have been made by the various department of govt of Uttar Pradesh to collect a basic data of crop residue and animal waste production in all the districts of Uttar Pradesh state.

These data depicts about 154540.17 thousand Mitric tons of agricultural crops waste/annum and 692062 Mitric tons of animal waste/day is available from all the districts of Uttar Pradesh. This crop residue has much potential to fulfil state's energy needs by the application of various bioenergy production technology like Bio-CNG production, Bio-Coal production, Producer gas production etc., and it will lead to utilization of own resources and independency on self reliance rural energy sources.

The possible utilization for this biomass are

1. Bio-CNG Production
2. Bio-Coal (Briquettes and Pallets) Production
3. Bio-manure Production

1- Bio-CNG Production

Bio-CNG production is an efficient way to convert the biomass waste to energy. Bio CNG is the purified form of biogas where all the unwanted gases are removed to produce >95% pure methane gas. Bio CNG is exactly similar to the commercially available natural gas (CV: ~52,000 kJ/kg) in its composition and energy potential. As it is generated from biomass, it is considered a renewable source of energy and thus, attracts all the commercial benefits applicable to other renewable sources of energy. Physically and chemically Bio CNG is same as CNG that is currently being imported. Bio CNG has a high calorific value and can be used in blast furnaces; also it can be converted into electricity. Bio CNG can directly replace every utility of LPG and CNG in India. It has the potential to be the future of renewable fuel because of the abundance of biomass in India.

Composition of Bio CNG is as follows:

S.N.	Gases	Composition
1.	Methane (CH_4)	Min 90 %
2.	Carbon Dioxide (CO_2)	Max 4.0%
3.	Hydrogen Sulphide (H_2S)	16 ppm
4.	Moisture	5ppm
5.	Filling pressure	220 bar (g)

Production Process:

Step 1: Extraction

Biogas is produced in a single-stage reactor from biomass through the process of anaerobic digestion. This biogas is a mixture of methane (CH4), carbon dioxide (CO2), and hydrogen sulphide (H2S).

Step 2: Purification

The next phase in the process is to purify this biogas to get highly purified biomethane, wherein the component gases have the least impurities and adhere to the standards set by the government regulatory bodies.

Step 3: Pressurizing and storage

The purified biomethane so produced is then pressurized and filled in certified high-pressure cylinders mounted on the cascades.

Step 4: Dispersion

The Bio CNG, so collected, is now ready to be dispensed for use in two wheelers, autos, cars, as well as trucks and buses.

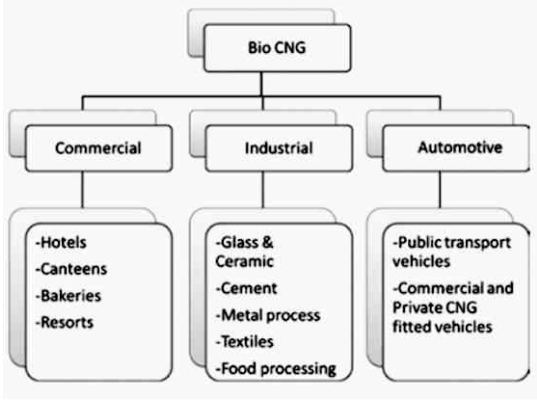


Figure: Application of Bio CNG

2- Bio-Coal (Briquettes and Pallets) Production

Bio-Coal is a solid organic form of biomass can be used for energy production. It is manufactured from converting agricultural waste into high density and energy concentrated fuel briquettes and pallets. Bio-Coal Briquettes and pallets are non conventional source of energy, renewable in nature, eco friendly, non polluting and economical. Process of converting agricultural waste to solid fuel is also non-polluting. It has not required adding any binder / chemicals so it is 100% natural. Bio-Coal is ready substitute of Coal/ wood/ other conventional fuel in industrial boiler and brick kiln for thermal application.

These can stand for the long distance transport. Loading/unloading and transportation costs are much less and storage requirement is drastically reduced.

Table : Comparison coal and biomass characteristics

Fuel	Calorific value (Kcal/Kg)	Ash Content (%)
Coal	3800-5300	20-40
Saw Dust	4600	0.7
Ground nut shell	4750	02.0
Rice Husk	3700	18.0
Paddy straw	3469	15.5
Wheat straw	4100	08.0
Mustard Stalk	3.4	4200

Bio Coal (briquettes and palates) production process

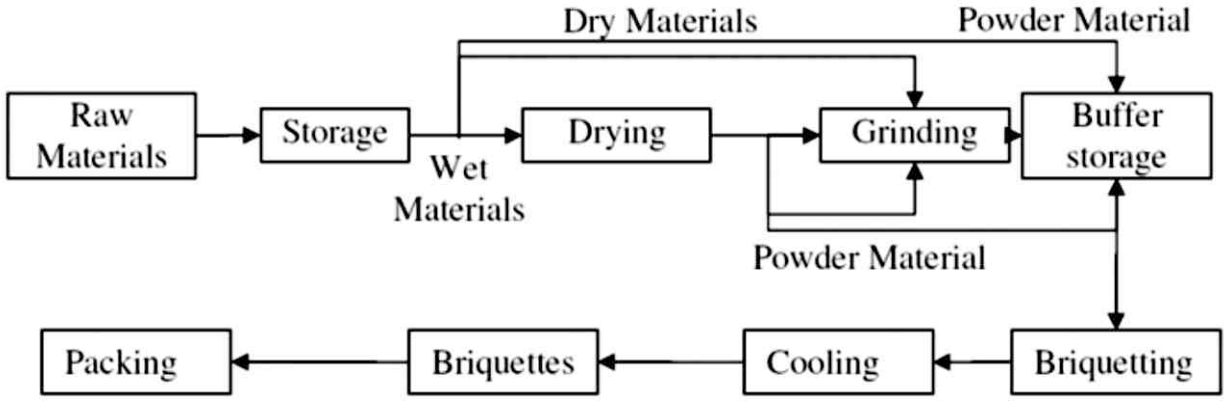
Briquetting and pallatization is the process of densification of biomass to produce homogeneous, uniformly sized solid pieces of high bulk density which can be conveniently used as a fuel.

Depending upon the type of biomass, three processes are generally required involving the following steps:

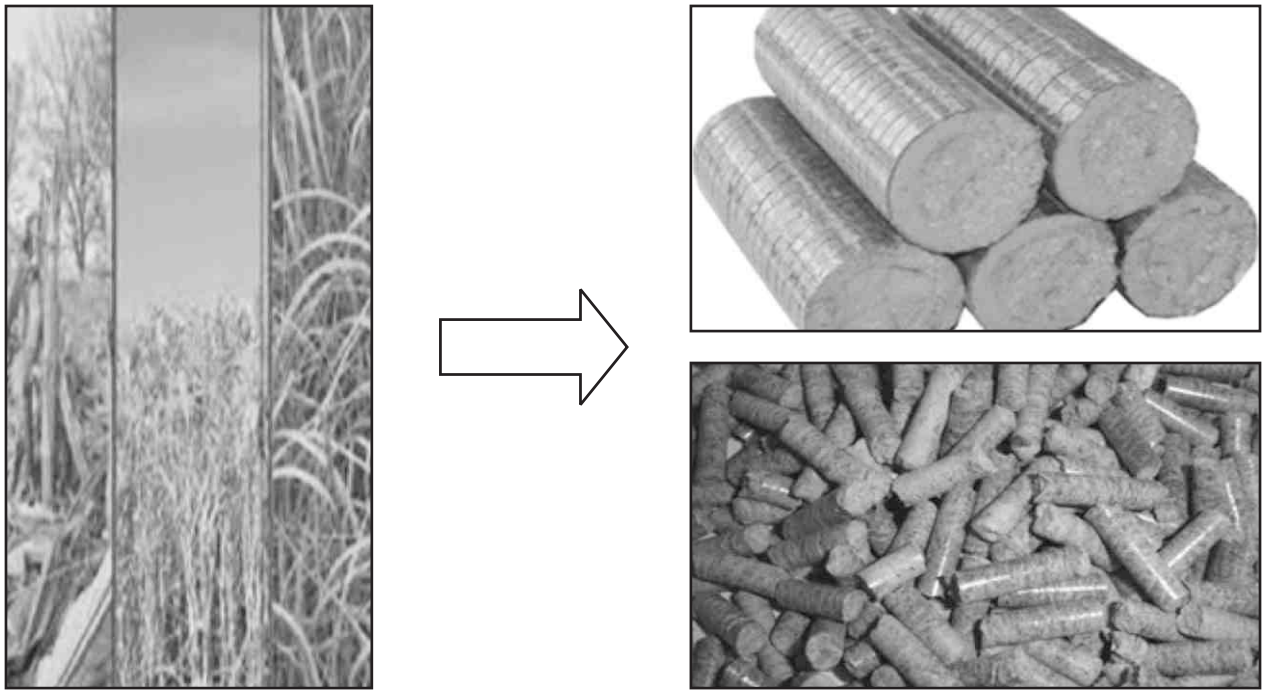
5.1 Sieving - Drying - Preheating - Densification - Cooling – Packing

5.2 Sieving - Crushing - Preheating - Densification - Cooling – Packing

5.3 Drying - Crushing - Preheating - Densification - Cooling – Packing



Flow Diagram of Biomass Briquette Production



Advantages of Bio-Coal uses

Bio Coal is a fairly good substitute for coal, lignite, firewood and offers numerous advantages:

- One of the alternative methods to save the consumption and dependency on fuel wood.
- Densities fuels are easy to handle, transport and store.
- They are uniform in size and quality.
- The process helps to solve the residual disposal problem.
- The process assists the reduction of fuel wood and deforestation.
- It provides additional income to farmers and creates jobs.
- Briquettes are cheaper than coal, oil or lignite once used cannot be replaced.
- There is no sulphur in briquettes.
- There is no fly ash when burning briquettes.
- Bio Coal has a consistent quality, high burning efficiency, and is ideally sized for complete combustion.
- Easy handling, packing and transportation of briquettes can be made in any conventional length and diameter
- Low ash content below 10% in comparison to coal 25 to 40% resulting in less boiler ash disposal problems
- Regular supply of briquettes do not suffer from transportation bottle necks as the plant can be set up near raw areas
- There will be no corrosion effect on boiler equipment resulting in negligible maintenance cost. Coal on the other hand produces sulphur dioxide, which on mixing with moisture produces sulphuric acid an corrosive acid

3- Bio-Manure Production

Animal wastes are important resources that are used to supplement organic matters and improve soil conditions. On the physico-chemical analysis, it is shows that biogas plant digested slurry has more nutrient value than unprocessed cattle manure. On an average from 25 kg of cattle dung produces 1m3 raw biogas and 5 kg of cattle dung.

Table: Characteristics of Bio-Manure

S.N.	Parameters	Value	
		Biogas Plant Slurry	**Farm Yard Manure**
1.	pH	7.0-7.4	7.5-8.3
2.	Moisture	>35%	75-85 %
3.	N	1.23-1.27 %	**0.94**%
4.	P	2.93-2.99%	**0.56**%
5.	K	2.84-2.88%	**0.72**%
6.	OC	23-28%	45-55%
7.	C:N	15-17	20-30
8.	Fe	0.59-0.63%	0.33 %
9.	Mn	0.31-0.32	0.12 %
10.	Cu	0.46-0.48%	0.017 %
11.	Zn	0.140-0.145 %	0.138%

Process of Bio-Manure Production

The bio Manure generated from the biogas plant can be utilized as a very good fertilizer for all crops. It can be directly utilizes in agricultural field or can be processed for good earning. The nutrients available in this liquid fertilizer will be absorbed by the plants very easily. It is generally known as a tonic for all plants due to the rich presence of nutrients. The interest of public for the utilization of liquid fertilizer for their manure applications is increasing day by day.

After collecting from the plants it is being packed in different volumes and sold to the public. There is very good demand from the public for the regular supply of bio manure. Through the sale of organic fertilizer the beneficiary can earn extra income from the plant.

The Slurry being transported to composting pits.

ECONOMICS OF WASTE BIOMASS TO BIO-ENERGY UNITS

(1) BIO-MASS TO BIO-CNG PRODUCTION UNIT

CAPACITY :- 5MT Cow-dung & Other Bio-degradable waste per day for producing 100 kg Bio-CNG and
250 Kg Bio-Manure/ per day

(2) BIO-COAL (BRIQUETTES & PALLETS) PRODUCTION

CAPACITY :- 4500 MT/Annum

RAW MATERIALS : WOODY NATURE BIO-MASS WASTE

(1) BIO-MASS TO BIO-CNG PRODUCTION UNIT

1.0 INTRODUCTION OF PROJECT

The present project is a 250 m3/day bio-gas plant based on anaerobic digestion of cattle dung wastes any other suitable wastes which may be available. The salient features of the projects may be enumerated as under.

- Project envisages setting up of a state of art upgraded bio-fuels production plant to convert cattle dung wastes into the following products.
- **100 kg (130M3)/ Day of Bio-CNG,** which will be sold as replacement to commercial LPG.
- **1250 Kg/day** of organic fertilizer which will be sold as value added by products.
- Plant operation: 80% is auto and 20% is manual.
- These are CSTR type reactor and operate at mesospheric temperatures. HRT is **28 to 30** days.
- Feed tank is fitted with a mixer for making uniform feed sulrryand pumped into digesters through underground pipe line.

2.0 DETAILED PROJECT DESCRIPTION

2.1. feedstock

- The feedstock is low cost and consists of 5,000 kg/day cow dung waste and other bio-degradable stuff.

2.2 products and services

- The bio-gas plant produces 205 m3/day of Raw Biogas, using low cost raw material in the form of cattle dung and other bio degradable waste tuffs, which are all available at low cost to the project. This ensures low cost generation of automobile fuel at the command and control of the facility management.
- The generated Biogas is converted into 100 kg/day of Bio-CNG.
- The plant also produces **1250 kg/day of solid organic fertilizer, and 1300 Liter/day of liquid fertilizer.**

2.3. Market for the products

- **BIO CNG** is to be supplied to consumers directly as a replacement for LPG/CNG as a fuel in industrial utilization, or as a cooking fuel in the restaurants at the nearby markets. It can also be used as an automobile fuel using gas dispensers and as high grade industrial fuel for cutting and welding applications. The net realization expected is **INR 45/Kg.**
- The solid and liquid bio-fertilizers are in demand as a premium replacement for chemical fertilizers and are to be directly marketed using appropriate channels to the farming communities and sold @ **INR 3.50/Kg.**

3.0 EQUIPMENT REQUIRED

3.1 Feed mixer tank

3.2 Mixing Agitator

3.3 Feeding pump (Screw Pump)

3.4 CSTR Technologies based Digester Tank with Stirring (Mixing using Agitator/pump)

3.5 Single membrane roof (Gas Balloon)

3.6 Associated liquid & Gas piping system with auxiliaries Liquids

3.7 MPSA biogas purification system with auxiliaries

3.8 High pressure Compressor

3.9 Cylinder Cascade

3.10 Solid liquid separator (Optional)

4.0 DETAILED SCOPE

4.1 Mechanical

4.1.1 Feed mixer tank

Before feeding into the Anaerobic Digester, dung should be diluted to Total Solid (TS) content of 8-10%. It should also be free from Floating Biomass (Straw etc) and Sedimentary Contents (Rocks, Clay etc.) Water tight, fair faced RCC construction, Specific dimension as per structural engineer, placed below ground level. Equipped with an agitator for premixing the feed stock. Volumetric capacity of the tank has to be ≥20,000.00 Liter.

4.1.2 Mixing. Agitator

Mixer Agitator for biogas application. Propeller speed 175 rpm. 5HP/175 RPM/AISI304. Motor – 3ph,50 Hz. 415v, Class IP55.

4.1.3 Feeding pumps (Screw pumps)

Progressing cavity screw pump capacity approx **10 m3/h** corresponding to dynamic viscosity of media (assumed: free flowing), **1.5-2.5** bar, with encapsulated mechanical seal, back flow tide, also in non0operational modus dry-run-protection.

- **Pump type :-** Progressive Cavity Screw pump. Temperature:- Ambient, Discharge Flow rate :-10 m3/hr, Specific Gravity:-1.2-1.5, Ph value:- 8, Pressure Kg/cm2 (Suction):- Flooded, pressure kg/cm2 (Testing):- 1.5-2.5, Suction x Delivery Size:- 2.5"x 2.5", Pump rpm:- 420, Drive Type:-V Belt
- **Motor Specifications :-**

  5 hp x 1440 rmp, 3phase, 415 volt, 50 Hz, AC Supply.

4.1.4 CSTR Technologies based Digester (1 No.) Tank with Stirring using by mixing agitator

Gas tight & water tight, fair faced RCC, Specific dimensions tank as per structural engineer. Equipped with

- Biogas Production Capacity : **250 M3/Day**
- **Type :** Continuous Stirring Tank Reactor
- **Material of Construction :** Reinforced Concrete Cement
- **Hydraulic Retention Time :** 28-30 Days
- **Agitator :** 1 No. Side entry type agitator
- **Inspections window** in Digester
- **Mixing Pattern :** Mixers should ensure the Precise Maintenance of Different Digestion Zones (Hydrolysis, Acidogenesis, Acetogenesis and Methanogensis) Inside the Digester. Therefore offered Mixers should be Side Entry type Mixing Pattern with Minimum Axial.
- **Other Digester Accessories** as required.

4.1.5 Single membrane roof

For RCC tank, a. tillable gas storage capacity as per digester Dia Design both side PVC coated fabric, temperature resistance min 60 0c, uresistant, Pneumatic hose pipe textile reinforced NBR incl. Valve & coupling, flanges.

4.1.6 Solid liquid separator

Manure-sludge separator **(Make- Italy Model-015 2.2 KW)** is composed of a machine sludge pump, a control cabinet and the pipelines.

It is mainly used to separate the solid and liquid for livestock manure such as cow manure, pig manure and chicken manure etc. to get dry manure. It. Can be used also the treat the sludge from biogas plant to get dry fertilizer.

4.1.7Associated liquid, Gas piping system for conveying substrates and Liquids & gas :- Piping has to be made HDPE/CS, rust proof structure, of appropriate Diameter, conforming the relevant BIS Standards.

4.1.8 MPSA biogas purification system with auxiliaries :

MPSA Biogas purification System With Accessories		
Sr.No	**Detailed scope**	**Qty.**
1	**Bio-Gas purification** unit Capacity **20 m3/hr** as per aforesaid scope of supply	1
2	Storage Tank (Capacity:- 5 M3)	1
3	Online CH4, & H2S Analyzer	1
4	Methane Gas flow meter	1

4.1.9 High pressure Biogas Booster Compressor

B-CNG Booster Compressor		
Sr.No.	**Description**	**Specification**
1	Model No.	AP 10- C
2	Type	Three Stage Piston
3	Intake Gas Flow	10 m3/hr
4	Output Gas Flow	10 m3/hr
5	Outpur Gas Pressure	200 Bar
6	Suction temperature, C	Ambient
7	Discharge temperature	Ambient after the cooler
8	Cooling Mode	Air cooled
9	Number of stages	3
10	Lubricating oil	YA-A32 or (Indian equivalent)
11	Motor Power	4.5 Kw
12	Noise Level	90 dab

4.1.10 Cylinder cascade

B- CNG CASCADE 2 Nos.
6 Cylinder Cascade 90 m3 at 200 Bar
B-CNG Gas at 200 Bar pressure (capacity 15 m3)
Casket having 6 cylinders. With inter connecting tubing safety valve manifold frame,
Rain protecting roof etc.

5.0 UTILITIES PROVIDED BY USER

5.1 Land for project

LAND Nos.	
Land Area Requirements	800 m2

5.2 Fresh water Resource

- **5 m3/.day** Required Fresh Water

5.3 A C Power

Supply of AC power 410 V, 50 Hz, 3P & N required for Total plant

5.4 running for consumption of different components of the unit as bellow :-

purpose	**Power Consumption**	**Power Consumption Running load**	**Unit Nos.**	**Running Hours**	**Total Consumption**
DIGESTER PLNT AND MACHINERY					
Agitator for mixing pit	**3 HP**	**2 KW**	**1**	**3**	**6 KW**
Agitator For Digester	**5 HP**	**3KW**	**1**	**3**	**9 KW**
Screw pump/Feeding pump	**5 HP**	**3 KW**	**1**	**3**	**9 KW**
Solid liquid separator	**3 HP**	**2 KW**	**1**	**4**	**8 KW**
BIOGAS PURIFICATION PLANT					
Bio-Gas (Roots Blower)	**3 HP**	**2 KW**	**1**	**12**	**24 KW**
Water jet Vacuum Pump	**3 HP**	**2 KW**	**1**	**12**	**24KW**
Booster Compressor	**7.5 HP**	**4 KW**	**1**	**12**	**48KW**
Pneumatic Air Compressor &Cooling Tower	**3 HP**	**2 KW**	**1**	**12**	**24KW**

Total Load required: 35 HP
Total Consumption per day: 150 KWh

6.1 COST BREAK-UP

Sr. No.	Equipment Description	Quantity	Unit Price INR>	Total Price INR.
1	Civil work of digester package with mixing Pit	1Package	12,00,000/-	12,00,000/-
2	Digester package Machinery Gas in and out system: Biogas single membrane Balloon with Safety: safe Gas side by water seal Different: Kinds of pipe line, valves and sealing) Agitator For Mixing chamber Agitator For Digester Feeding pump Other Digester Accessories	1Package	15,00,000/-	15,00,000/-
3	20 m3/hr Biogas Purification/ up gradation System with accessories online CH4 & H2S Analyzer Cylinder Filling station	1 set	15,00,000/-	15,00,000/-
4	Online CH4 and H2A Analyzer	1 No set	2,00,000/-	2,00,000/-
5	10 m3/hr Bio CNG Compressor 200 bar	1 set	7,50,000/-	7,50,000/-
6	6 cylinder cascade	2 set	2,50,000/-	2,50,000/-
7	Solid/Liquid Fertilizer Separator	1 set	8,50,000/-	8,50,000/-
8	Piping, Electrical Instruments and control system for Biogas to Bio-CNG Plant	1 set	5,00,000/-	5,00,000/-
Total Plant & Machinery (5 ton Waste Based Bio-CNG Turnkey Project Cost)				**70,00,000/- INR**

SUMMARY OF BIO-CNG PROJECT ECONOMICS			
Sr.NO.	PARAMETERS	QTY	UNITS
1	**Capacities**		
1	Biogas Plant Gapacity	250	M3
2	Bio-CNG Plant Capacity	100	Kg/Day
3	Compost Plant Capacity	1250	Kg/Day
II	**Consumption & Output @ 100% Capacity (340 days)**		
1	Annual Consumption of Cattle Dung as received	1,700	TON
2	Consumption of Electricity for Factory use	51,000	KWh (Unit)
3	Maximum Quantity of Biogas Generated	85,000	M3
4	Maximum Quantity of Bio-CNG Generated	34,000	Kg
5	Maximum Quantity of Compost Generated	425,000	Kg
6	Maximum Quantity of Liquid Fertilizer Fertilizer Generated	500,000	L
III	**Selling Price and Cost**		
1	Selling Price of Bio-CNG @90% of current market Price of Commercial LPG	45	INR/kg
2	Selling Prie of Compost	3.5	INR/kg
3	Selling Price of Liquid Fertilizer	0.5	INR/L
4	Cost of Cattle Dung including Transportation cost	Free of cost	INR/TON
5	Cost of Water	20	INR/MT
6	Cost of Electricity	7	INR/KW.h

3.0 PRFOTIBILITY ESTIMATES

	PRFOTIBILITY ESTIMATES ON 100% BASIS (340 working days)					
	PROJECTION	**UNIT RATE (INR)UNIT**	**UNIT**	**ANNUAL QUANTITY**	**AMOUNT ROUND OFF (INR)**	
	INCOME					
A	Sale of Bio-CNG	45	INR/Kg	34,000	15,30,000	
B	Sale of compost/splid Manure	3.6	INR/Kg	850,000	15,30,000	
C	Sale of Liquid Fertilizer	0.5	INR/Ltr.	5,10,000	2,55,000	
	Gross Annual Sale			33,15,000		
	Gross Annual Sale round off			33,00,000		
	EXPENSES					
1	**VARIABLE OPERATING EXPENSES** RAW MATERIAL					
A	Annual consumption of cattle dung as received	Free	INR/Ton	0	0	
	TOTAL	0		0		
2	2.POWER & WATER REQUIREMENT					
A	For Auxiliaries for Captive Power for Bio-CNG factory	7	INR/M3	51,000	3,50,000	
B	Annual consumption of water And others	10	INR/M3	5000	50,000	
	TOTAL			4,00,000		
	TOTAL VARIABLE EXPENSES	4,00,000				

FIXED OPERATING EXPENSESS

	PROJECTIONS	UNIT RATE (INR)	UNIT	ANNUAL QUANTITY	AMOUNT (INR)
1	Office and other Overheads				
A	Professional free	1000	INR/MONTH	12	12,000
B	Postage Telephone etc.	1000	INR/MONTH	12	12,000
C	Office supplies	1500	INR/MONTH	12	18,000
D	R&M of Plant & Machinery	2	% Yearly	1,40,000	1,40,000
F	Factory Workers and Supervision & Office Staff	26.500	INR/MONTH	12	3,18,000
	TOTAL FIXED EXPENSES				**5,00,000**

Project Cost and Means of finance			INR
1	Project cost	70,00,000	INR
2	Equity & Preference Share capital 25%	17,50,000	INR
3	Loan from Bank	68,25,000	INR
4	Subsidy from MNRE 50% or equivalent	35,00,000	INR
5	Effected Loan amount for interest	33,25,000	INR
6	Interest amount @6% (with interest subsidy)	2,00,000	INR

	Project profitability		INR
1	Gross Annual sale	33,00,000	INR
2	Total Variable & Fixed Cost	9,00,000	INR
3	Loan Interest amount	2,00,000	INR
	Net profit per year	22,00,000	INR

Note if cow dung and other bio-degradable waste are procured on cost of Rs. 500 per MT. in such conditions we may deduct Rs. 8,75,000 as cost of raw material per annum which has been mentioned nil in the table above.

(2)BIO-COAL (BRIQUETTES & PALLETS) PRODUCTION

(काष्ठीय बायोमास अपशिष्ट से बायोकोल उत्पादन परियोजना का संक्षिप्त अर्थशास्त्र)

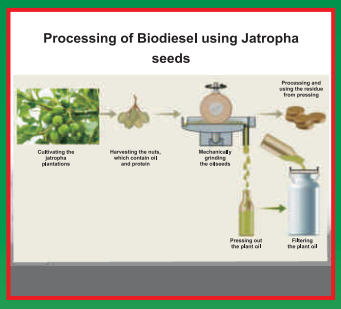
क्र0 सं0	शीर्षक	विवरण		
1.	इकाई का नाम :	लेण्टाना, कृषि अपशिष्ट एवं अन्य काष्ठीय बायोमास अपशिष्टों से बायोकोल (पिलेट्स) उत्पादन		
2.	इकाई का पता :	जनपद :		
3.	संचालन कर्त्ता :	उत्पादक समूह/संगठन (Like F.P.O.)/फर्म/कम्पनी		
4.	तकनीकी सहयोग	उ0प्र0 राज्य जैव ऊर्जा विकास बोर्ड, योजना भवन, लखनऊ।		
5.	अधिश्ठापित क्षमता	4500 M.T. प्रतिवर्ष रू0–5000/टन=रू0–2.25,00.000		
6.	विद्युत शक्ति की आवश्यकता एवं अनुमानित व्यय प्रति माह	100 किलो वाट (बायोमास गैसीफायर की सहायता से 100 kw x 10 घण्टा प्रति दिन x 30 दिन x 4.50 प्रति यूनिट : अतः ग्रिड शक्ति की आवश्यकता नहीं) रू0–1,35,000		
7.	मानव शक्ति की आवश्यकता एवं अनुमानित व्यय प्रति माह	1.	प्रबन्धक : 1	रू0–20,000 प्रतिमाह
		2.	तकनीकी सुपरवाइजर : 3	रू0–36,000 प्रतिमाह
		3.	कुशल श्रमिक :5	रू0–40,000 प्रतिमाह
		4.	अकुशल श्रमिकः10	रू0–50,000 प्रतिमाह
			योग : 19	**रू0–1,46,000 प्रतिमाह**
8.	परियोजना की पूंजीगत लागत :	1.	भूमि	–
		2.	भवन/शेड	5000 व0 फु0 : रू0–12,00,000
		3.	मशीन	रू0–1500,000.00
		4.	गैसीफायर तथा जनरेटर	रू0–10,40,000.00
		5.	अन्य सहयोगी उपकरण	रू0–1,50,000.00
			योग–	**रू0–38,90,000.00**
9.	परियोजना की सकल लागत	1.	पूंजीगत लागत	रू0–38.90 लाख
		2.	कार्यशील पूंजी (एक चक्र हेतु)	रू0–22.50 लाख
			सकल योग–	**रू0–61.40 लाख**
10.	वित्त पोषण :	1.	उत्पादक समूह का अंशदान (25 प्रतिशत)	रू0–15.35 लाख
		2.	दीर्घकालिक ऋण	रू0–29.17 लाख
		3.	कैश–क्रेडिट सीमा	रू0–16.88 लाख

			योग :	**रू0–61.40 लाख**
11.	वार्शिक लाभ प्रदता :	1.	बिक्री से प्राप्त आय :	रू0–2,25,00,000.00
		2.	उत्पादन लागत	
			(अ) कच्चा माल :	रू0–90,00,000.00
			(ब) प्रक्रियात्मक आवर्त्ती लागत : (विद्युत व्यय, श्रम व्यय इत्यादि)	रू0–67,50,000.00
				67,50,000.00
		3.	लाभ (1)–(2) :	रू0–67,50,000.00
		4.	ब्याज का भुगतान	रू0–6,30,000.00
		5.	घिसाव (Depreciation) मशीन तथा शेड की लागत का 10 प्रतिशत	रू0–3,89,000.00
		6.	ऋण की वापसी :	रू0–5,83,400.00
		7.	जी0एस0टी0 (5 प्रतिशत)	रू0–11,25,000.00
		8.	शुद्ध लाभ : (3–4–5–6) –7) :	रू0–51,47,600.00 रू0–40,22,600.00
		9.	वित्तीय तरलता : (8 + 5)	रू0–44,11,600.00
		10.	इकाई का पे बैंक पीरियड	लगभग 02 वर्ष
		11.	लाभ प्रति ात :	रू0–17.87 प्रतिशत
12.	शासकीय सहयोग :	(1) ऋण के सापेक्ष CGTFMSME से ऋण की गारण्टी (2) MSME से अनुमन्य ब्याज उपादान		
13.	इकाई स्थापना एवं संचालन की प्रक्रिया :	उ0प्र0 राज्य जैव ऊर्जा विकास बोर्ड के समन्वय से सम्बन्धित उद्यमी जो इस परियोजना पर अग्रणी रूप से कार्य कर रहा है कि सहायता से लखीमपुर जनपद में लेण्टाना (राहभुनिया) की समस्या से प्रभावित ग्राम पंचायतों/वन ग्रामों के निवासियों को प्रशिक्षित कर उनका उत्पादक समूह विकसित कर उसे कम्पनीज एक्ट में पंजीकृत कराया जाएगा। प्रस्तावित इकाई के संचालन की समग्र जिम्मेदारी इसी द्वारा वहन की जायेगी। कम्पनी में सम्मिलित अंशधारक ग्रामीण/किसान लाभांश शेयर करेंगे, जबकि गांव के लोगों को लेण्टाना बायोमास (up to 7 % Mosture) का भुगतान रू0–2000 प्रति टन की दर से इकाई द्वारा तत्काल बैंक खाते में जमा कर दी जायेगी। एफ0पी0ओ0 में सम्मिलित किसानों/ग्रामीणों को उनके अंशदान के अनुसार लाभांश वितरित किया जायेगा।			

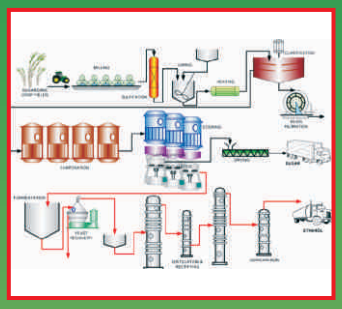
Bio-gas Plant

Producer Gas Unit

Bio-Coal Unit & Pellets



Bio-diesel Extraction Process through Jetropha



Bio-ethanol Extraction Process through Sugarcane

Medicinal & Aromatic Plant

Super Foods
(Quinoa Plant & Seeds)

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