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## Plan Overview

*A Data Management Plan created using DMPTool*

**Title:** Métodos de pastejo e fontes de suplementos em pastos de capim Mulato II: Respostas agrônômicas, cinética da decomposição de raízes e potencial de mitigação de metano *in vitro*

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**Funder:** São Paulo Research Foundation (fapesp.br)

**Funding opportunity number:** 2019/23829-7

**Grant:** [https://sage.fapesp.br/SAGe\\_WEB/printProcess.do?abstractProcessId=311723&typeProcess=true&showInPopup=true&org.apache.struts.taglib.html.TOKEN=335ed5d43a9242ce761743f2db4d055e&method=printProcess](https://sage.fapesp.br/SAGe_WEB/printProcess.do?abstractProcessId=311723&typeProcess=true&showInPopup=true&org.apache.struts.taglib.html.TOKEN=335ed5d43a9242ce761743f2db4d055e&method=printProcess)

**Template:** Digital Curation Centre (português)

### Project abstract:

As respostas de plantas forrageiras à altura do dossel, em condições de pastejo, podem variar entre os métodos de lotação empregados. Estudos comparando a lotação rotativa com a lotação contínua são escassos, e no entanto, são necessários para adequações das técnicas de manejo que sejam favoráveis ao acúmulo e ao valor nutritivo da forragem, à incorporação de carbono nos solos via incremento da biomassa radicular, e ajudem a promover os diversos serviços ecossistêmicos a partir do agroecossistema pastagem. Adicionalmente, o manejo do pastejo pode ser uma ferramenta para manipular a digestibilidade da forragem e favorecer a redução de emissões de metano pelos ruminantes. A manipulação do substrato da dieta a partir da suplementação de animais mantidos em pastagens também vem sendo considerada como estratégia eficiente para modular a fermentação ruminal e reduzir a produção de metano entérico, minimizando o impacto da atividade no ambiente e aumentar a eficiência global da atividade. Os objetivos com o presente projeto são de comparar e explicar o desempenho agrônômico e a cinética de decomposição de raízes do capim Mulato II em resposta a estratégias de manejo por lotação contínua e intermitente (subprojeto 1); e quantificar o impacto do método de pastejo e do uso de suplemento nas emissões de metano, e no perfil e cinética da degradabilidade *in vitro* da fibra (subprojeto 2). No subprojeto 1 serão comparados seis tratamentos de pastejo sob lotação contínua mimetizada e lotação rotativa, caracterizados com alturas médias do dossel de 20 ou 30 cm determinadas como base para comparação equivalente entre os métodos e as diferentes severidades de desfolhação impostas. No subprojeto 2, será avaliado o efeito do método de pastejo (subprojeto 1) associado a estratégias de suplementação (NO<sub>3</sub>- + S elementar; óleo de soja; concentrado grão de milho moído; e óleo de soja + concentrado grão de milho moído) para melhorar o perfil e a cinética da degradabilidade da fibra *in vitro* e reduzir a produção de metano entérico. Espera-se que os efeitos combinados dos métodos de pastejo e do uso de suplementos em pastagens permita racionalizar sobre as respostas das plantas e suas flexibilidades de manejo, identificando oportunidades de avanços para a sustentabilidade da produção de bovinos em pastagens.

**Start date:** 05-01-2020

**End date:** 10-31-2021

**Last modified:** 02-22-2022

**Grant number / URL:** [https://sage.fapesp.br/SAGe\\_WEB/printProcess.do?abstractProcessId=311723&typeProcess=true&showInPopup=true&org.apache.struts.taglib.html.TOKEN=335ed5d43a9242ce761743f2db4d055e&method=printProcess](https://sage.fapesp.br/SAGe_WEB/printProcess.do?abstractProcessId=311723&typeProcess=true&showInPopup=true&org.apache.struts.taglib.html.TOKEN=335ed5d43a9242ce761743f2db4d055e&method=printProcess)

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## Métodos de pastejo e fontes de suplementos em pastos de capim Mulato II: Respostas agrônômicas, cinética da decomposição de raízes e potencial de mitigação de metano in vitro

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### Coleta de Dados

#### Que dados serão coletados ou criados?

Todos os dados desse projeto serão coletados. Parte dos dados serão coletados em experimento de campo e outra parte processados em laboratório e obtidos a partir de ensaios químicos ou biológicos em ambiente laboratorial.

#### Como os dados serão coletados ou criados?

Os dados de campo serão coletados em pastagens usando técnicas de experimentação agrônômicas usando metodologias específicas para cada avaliação.

Amostras coletadas no experimento de campo será conduzida ao laboratório, onde serão processadas e submetidas a ensaios e marchas analíticas específicas para cada determinação, seguindo metodologias aceitas pela comunidade científica a fim de obter os dados descritos no projeto.

### Documentação e Metadados

#### Que documentação e metadados acompanharão os dados?

1. Serão anexados os comprovantes de registro no comitê ética ambiental e comitê ética no uso de animais.
2. Serão anexados as planilhas de dados científicos do projeto.

### Ética e Conformidade Legal

#### Como você administrará qualquer questão ética?

As questões éticas seguiram todas as normativas de pesquisa previstas.

#### Como você vai gerenciar os direitos autorais e os direitos de propriedade intelectual (IP / IPR)?

Todos os direitos autorais e de propriedade intelectual serão seguidos.

### Armazenamento e Backup

#### Como os dados serão armazenados e terão backup durante a pesquisa?

Ao longo dos dados serão anotados em pesquisas de campo e posteriormente em planilhas digitais usando Excel como ferramenta. Será realizado o upload como planilha de dados referente ao projeto de pesquisa no drive criado a partir do e-mail institucional da aluna de doutorado e compartilhado em todas as embalagens para carregamento do google com os demais dados e atualização sempre que necessário .

#### Como você vai gerenciar o acesso e a segurança?

Sim, os dados serão liberados para download apenas ao supervisor do projeto e a administradora dos dados do projeto. Outros membros poderão apenas visualizar dados já existentes e fazer upload de novas planilhas de dados que serão verificadas pela administradora.

### Seleção e Preservação

#### Quais dados são de valor a longo prazo e devem ser mantidos, compartilhados e / ou preservados?

Todos os dados desse projeto são de médio e longo prazo, e devem ser mantidos como informações cinéticas que complemente o conhecimento técnico na área de produção de bovinos à pasto e de nutrição de ruminantes. Além disso, os dados devem ser preservados até que sejam finalizadas as publicações dos artigos em periódicos científicos.

#### Qual é o plano de preservação a longo prazo do conjunto de dados?

Os dados serão mantidos no drive compartilhado com acesso restrito ao Supervisor do projeto e da aluna de doutorado encarregada em administrar os dados no drive.

### Compartilhamento de Dados

#### Como você vai compartilhar os dados?

Os dados serão compartilhados pelo google drive (@usp.br) entre os membros do projeto.

#### Existem restrições ao compartilhamento de dados requeridos?

Sim, os dados disponibilizados, enquanto não publicados, apenas aos alunos de pós-graduação referente aos seus respectivos subprojetos de dissertação ou tese.

### Responsabilidades e Recursos

#### Quem será responsável pelo gerenciamento de dados?

Cada alunos de pós-graduação terá a função de planilhar seus dados no Excel e posteriormente carregar no drive compartilhados com acesso ao supervisor e a administradora de dados Solange Holschuch.

#### Quais recursos você precisará para entregar seu plano?

Question not answered.

## Planned Research Outputs

### Dataset - "Fotossíntese foliar e outras variáveis fisiológicas\_IRGA Li-Cor "

Dados Fisiológicos IRGA\_Folha 1\_ Folha mais nova completamente expandida de Capim Mulato II

Manejo	Ano	Bloco	foto	Cond	Ci	Trmol	VpdL	Ci_Ca	WUE
LC20	1	1	23,10	0,16	119,03	3,64	2,16	0,30	6,66
LC20	1	2	33,85	0,35	169,75	7,29	2,26	0,43	4,85
LC20	1	3	30,75	0,21	104,15	4,82	2h30	0,26	6,38
LC20	2	1	29,86	0,30	199,24	6,99	2h30	0,50	4,33
LC20	2	2	29,09	0,17	98,80	5,58	3,03	0,25	5,19
LC20	2	3	23,09	0,39	270,79	12,85	3,12	0,68	1,80
LC20	3	1	32,50	0,35	188,00	3,67	1,08	0,47	8,86
LC20	3	2	28,10	0,17	89,20	2,26	1,25	0,22	12,43
LC20	3	3	29h30	0,56	262,50	4,04	0,80	0,65	7,21
LC30	1	1	28,55	0,28	167,25	6h30	2h30	0,42	4,65
LC30	2	1	33,41	0,24	144,54	6,44	2,53	0,36	5,16
LC30	3	1	30,80	-8,25	264,30	4,46	0,71	0,60	9,03
LC30	1	2	26,50	0,18	110,25	5,03	2,70	0,28	5,25
LC30	2	2	33,17	0,21	98,98	7,02	3,16	0,25	4,91
LC30	3	2	33,35	0,78	267,50	4,43	0,67	0,67	7,53
LC30	1	3	28,90	0,18	81,00	4,40	2,40	0,20	6,59
LC30	2	3	31,10	.	.	.	.	.	.
LC30	3	3	33h30	0,49	229,50	4,48	0,97	0,57	7,43
RL20	1	1	29,65	0,23	128,05	5,52	2,42	0,32	5,39
RL20	2	1	33,76	0,23	130,75	7,58	3,07	0,33	4,50
RL20	3	1	35,65	0,29	138,50	5,28	1,82	0,34	7,04
RL20	1	2	36,20	0,30	140,00	4,69	1,57	0,35	7,78
RL20	2	2	.	.	.	.	.	.	.
RL20	3	2	33,65	0,35	161,50	4,57	1,33	0,40	8,77
RL20	1	3	30,37	0,26	135,63	6,43	2,58	0,34	4,84
RL20	2	3	31,72	0,25	145,88	7,72	3,03	0,36	4,25
RL20	3	3	26,66	0,21	114,50	3,36	1,63	0,29	8,76
RL30	1	1	27,60	0,23	152,00	4,75	2,04	0,38	5,79
RL30	2	1	31,55	0,20	108,36	4,88	2,33	0,27	6,59
RL30	3	1	31,22	0,76	237,83	4,78	0,93	0,59	6,97
RL30	1	2	36,87	0,42	186,33	5,22	1,30	0,47	7,25
RL30	2	2	21,62	0,11	42,83	3,97	3,36	0,11	5,93
RL30	3	2	31,88	0,72	207,40	5,65	1,37	0,52	5,80
RL30	1	3	37,10	0,58	233,50	6,07	1,13	0,58	6,10
RL30	2	3	.	.	.	.	.	.	.
RL30	3	3	31,60	0,54	244,25	5,14	1,03	0,61	6,42
LRM20	1	1	28,05	0,21	130,50	4,27	2,01	0,33	6,57
LRM20	2	1	27,36	0,18	99,80	5,83	3,20	0,25	4,95
LRM20	3	1	29,34	0,51	199,87	4,84	1,53	0,49	6,17
LRM20	1	2	26,53	0,20	129,00	5,11	2,57	0,32	5,31
LRM20	2	2	29,47	0,18	90,32	6,48	3,42	0,23	4,71
LRM20	3	2	26,80	0,30	186,67	5,45	1,92	0,47	4,91
LRM20	1	3	34,10	0,28	137,00	4,61	1,70	0,34	7,40
LRM20	2	3	.	.	.	.	.	.	.
LRM20	3	3	.	.	.	.	.	.	.
LRM30	1	1	40,10	0,42	179,00	5,68	1,40	0,45	7,06
LRM30	2	1	30,61	0,17	83,63	6,12	3,30	0,21	5,10
LRM30	3	1	28,17	0,47	213,67	4,58	1,22	0,53	6,49
LRM30	1	2	28,62	0,22	133,40	5,10	2,35	0,33	5,75
LRM30	2	2	24,70	0,13	60,94	5,05	3,66	0,15	4,93
LRM30	3	2	26,42	0,37	188,62	4,62	1,64	0,47	5,83
LRM30	1	3	28,30	0,16	51,70	4,99	3,12	0,13	5,67
LRM30	2	2	24,48	0,13	68,77	4,66	3,31	0,17	5,25
LRM30	3	3	30,60	0,70	258,33	5,82	1,05	0,64	5,40

Dados Fisiológicos IRGA\_Folha 2\_ Folha Madura estrato inferior do dossel de Capim Mulato II

Manejo	Ano	Bloco	Photo	Cond	Cl	Trmmol	VpdL	Cl_Ca	WUE
LRL30	1	1	17.86	0.15	172.00	3.41	2.21	0.43	5.23
LRL30	2	1	16.61	0.14	159.45	3.22	2.43	0.40	5.17
LRL30	3	1	18.88	0.27	211.97	3.14	1.38	0.53	6.35
LC20	1	1	8.83	0.05	121.33	1.50	2.59	0.30	5.99
LC20	2	1	15.72	0.12	164.77	4.05	3.11	0.41	3.88
LC20	3	1	20.30	0.18	178.00	2.04	1.13	0.44	9.95
LC30	1	1	16.93	0.14	158.75	3.98	2.77	0.40	4.31
LC30	2	1	21.71	0.16	154.23	4.85	2.85	0.39	4.32
LC30	3	1	17.45	1.33	346.50	2.17	0.23	0.87	8.08
LRM20	1	1	8.76	0.10	230.00	2.56	2.45	0.57	3.47
LRM20	2	1	27.07	0.19	134.31	5.81	2.92	0.34	4.66
LRM20	3	1	17.32	0.33	272.00	3.59	1.28	0.68	4.83
LRL20	1	1	15.98	0.12	130.90	3.55	3.11	0.33	4.46
LRL20	2	1	16.53	0.11	137.88	3.84	3.15	0.34	4.31
LRL20	3	1	24.70	0.51	250.00	4.30	1.24	0.63	5.71
LRM30	1	1	19.20	0.14	135.00	2.89	2.01	0.34	6.64
LRM30	2	1	.	.	.	.	.	.	.
LRM30	3	1	20.83	0.35	230.33	3.77	1.31	0.58	5.76
LRL20	1	2	17.75	0.14	155.50	3.25	2.27	0.39	5.46
LRL20	2	2	.	.	.	.	.	.	.
LRL20	3	2	20.95	0.24	211.50	3.45	1.40	0.52	7.07
LC20	1	2	22.27	0.22	179.33	6.51	2.95	0.45	3.41
LC20	2	2	6.92	0.03	-54.28	1.21	4.35	-0.14	5.70
LC20	3	2	20.10	0.20	206.00	3.24	1.54	0.52	6.20
LRM30	1	2	13.49	0.12	179.00	3.18	2.68	0.44	4.43
LRM30	3	2	16.58	0.23	191.37	3.44	1.93	0.48	5.07
LRL30	1	2	13.45	0.13	204.33	2.92	2.19	0.51	4.56
LRL30	2	2	14.09	0.12	98.69	2.44	2.39	0.25	6.48
LRL30	3	2	17.05	0.20	201.00	3.19	1.74	0.50	5.46
LC30	1	2	13.33	0.09	129.28	3.15	3.29	0.32	4.15
LC30	2	2	12.88	0.06	34.65	2.57	3.86	0.09	5.09
LC30	3	2	29.40	0.56	259.00	4.02	0.79	0.65	7.31
LRM20	1	2	126.30	0.10	159.25	3.37	3.26	0.40	3.69
LRM20	2	2	19.76	0.11	88.51	4.11	3.55	0.22	4.64
LRM20	3	2	15.93	0.18	196.00	3.50	2.09	0.49	4.55
LC20	1	3	16.78	0.12	139.98	3.50	2.78	0.35	4.79
LC20	2	3	.	.	.	.	.	.	.
LC20	3	2	188.40	0.20	213.50	2.35	1.15	0.53	8.10
LRM30	1	3	19.80	0.12	96.60	4.40	3.47	0.24	4.50
LRM30	2	2	16.06	0.09	90.90	3.65	3.68	0.23	4.40
LRM30	2	3	.	.	.	.	.	.	.
LRM30	3	3	20.23	0.46	285.00	5.07	1.20	0.71	4.00
LRL20	1	3	21.14	0.16	112.53	4.40	2.91	0.28	4.93
LRL20	2	2	.	.	.	.	.	.	.
LRL20	3	3	188.40	0.16	173.25	3.21	1.92	0.43	5.94
LRL30	1	3	25.80	0.29	205.50	4.99	1.72	0.51	5.17
LRL30	2	3	.	.	.	.	.	.	.
LRL30	3	3	18.63	0.23	219.50	3.46	1.54	0.55	5.49
LC30	1	3	17.90	0.12	121.20	3.36	2.66	0.30	5.32
LC30	2	3	.	.	.	.	.	.	.
LC30	3	3	22.60	0.31	235.50	3.14	1.05	0.59	7.21
LRM20	1	3	14.25	0.10	151.50	1.88	1.73	0.38	7.59
LRM20	2	3	.	.	.	.	.	.	.
LRM20	3	3	.	.	.	.	.	.	.

Dataset - "Fotossíntese do dossel forrageiro de capim Mulato II "

Fotossíntese do Dossel\_ Altura de pré-pastejo e altura média do dossel\_ Capim Mulato II

MANEJO	ANO	BLOCO	PRE						ALTURA MEDIA					
			PHOTOpre	Kpre	IAFsolPRE	IAFsombPRE	PhotoSolPRE	PhotoSombPRE	PhotoALIMd	KALIMd	IAFsolALIMd	IAFsombALIMd	PhotoSolALIMd	PhotoSombALIMd
LC20	1	1	44.81	0.82	1.19	3.10	23.10	5.60	44.81	0.82	1.19	3.10	23.10	5.60
LC20	1	2	61.25	0.76	1.27	3.32	33.85	5.49	61.25	0.76	1.27	3.32	33.85	5.49
LC20	1	3	54.13	0.80	1.20	2.78	30.75	6.21	54.13	0.80	1.20	2.78	30.75	6.21
LC20	2	1	54.56	0.79	1.23	3.16	29.86	5.66	54.56	0.79	1.23	3.16	29.86	5.66
LC20	2	2	52.77	0.83	1.18	3.46	29.09	5.34	52.77	0.83	1.18	3.46	29.09	5.34
LC20	2	3	45.66	0.81	1.20	3.42	23.09	5.23	45.66	0.81	1.20	3.42	23.09	5.23
LC20	3	1	55.49	0.78	1.20	2.42	32.50	6.77	55.49	0.78	1.20	2.42	32.50	6.77
LC20	3	2	49.25	0.80	1.18	2.38	28.10	6.75	49.25	0.80	1.18	2.38	28.10	6.75
LC20	3	3	51.30	0.80	1.18	2.54	29.30	6.54	51.30	0.80	1.18	2.54	29.30	6.54
LC30	1	1	53.75	0.80	1.23	3.69	28.55	5.03	53.75	0.80	1.23	3.69	28.55	5.03
LC30	1	2	61.93	0.76	1.29	3.74	33.41	5.02	61.93	0.76	1.29	3.74	33.41	5.02
LC30	1	3	60.56	0.71	1.37	3.76	30.80	4.91	60.56	0.71	1.37	3.76	30.80	4.91
LC30	2	1	51.92	0.80	1.23	4.48	26.50	4.30	51.92	0.80	1.23	4.48	26.50	4.30
LC30	2	2	59.48	0.82	1.20	4.35	33.17	4.49	59.48	0.82	1.20	4.35	33.17	4.49
LC30	2	3	59.95	0.82	1.21	4.46	33.35	4.40	59.95	0.82	1.21	4.46	33.35	4.40
LC30	3	1	52.63	0.81	1.20	3.14	28.90	5.69	52.63	0.81	1.20	3.14	28.90	5.69
LC30	3	2	55.79	0.77	1.24	2.81	31.10	6.11	55.79	0.77	1.24	2.81	31.10	6.11
LC30	3	3	57.27	0.81	1.19	2.88	33.30	6.12	57.27	0.81	1.19	2.88	33.30	6.12
LRL20	1	1	54.54	0.81	1.21	3.68	29.65	5.09	54.54	0.81	1.21	3.68	29.65	5.09
LRL20	1	2	60.74	0.81	1.22	4.49	33.76	4.38	60.74	0.81	1.22	4.49	33.76	4.38
LRL20	1	3	65.01	0.77	1.28	4.14	35.65	4.66	65.01	0.77	1.28	4.14	35.65	4.66
LRL20	2	1	60.86	0.84	1.16	3.35	36.20	5.58	60.86	0.84	1.16	3.35	36.20	5.58
LRL20	2	2	60.65	0.82	1.19	3.67	34.93	5.18	60.65	0.82	1.19	3.67	34.93	5.18
LRL20	2	3	59.61	0.82	1.20	3.90	33.65	4.91	59.61	0.82	1.20	3.90	33.65	4.91
LRL20	3	1	50.38	0.87	1.10	2.56	30.37	6.68	50.38	0.87	1.10	2.56	30.37	6.68
LRL20	3	2	53.09	0.85	1.13	2.64	31.72	6.53	53.09	0.85	1.13	2.64	31.72	6.53
LRL20	3	3	46.12	0.83	1.13	2.31	26.66	6.90	46.12	0.83	1.13	2.31	26.66	6.90
LRL30	1	1	57.01	0.73	1.35	5.16	27.60	3.80	57.01	0.73	1.35	5.16	27.60	3.80
LRL30	1	2	52.53	0.95	1.04	4.18	31.55	4.69	52.53	0.95	1.04	4.18	31.55	4.69
LRL30	1	3	59.21	0.78	1.27	4.48	31.22	4.34	59.21	0.78	1.27	4.48	31.22	4.34
LRL30	2	1	64.13	0.83	1.20	4.90	36.87	4.09	64.13	0.83	1.20	4.90	36.87	4.09
LRL30	2	2	45.08	0.83	1.20	4.74	21.62	4.03	45.08	0.83	1.20	4.74	21.62	4.03
LRL30	2	3	58.67	0.81	1.23	4.48	31.88	4.36	58.67	0.81	1.23	4.48	31.88	4.36
LRL30	3	1	63.81	0.84	1.18	4.89	37.10	4.10	63.81	0.84	1.18	4.89	37.10	4.10
LRL30	3	2	59.72	0.83	1.19	3.67	34.35	5.17	59.72	0.83	1.19	3.67	34.35	5.17
LRL30	3	3	55.96	0.86	1.15	4.33	31.60	4.51	55.96	0.86	1.15	4.33	31.60	4.51
LRLM20	1	1	55.46	0.76	1.29	4.36	28.05	4.39	55.46	0.76	1.29	4.36	28.05	4.39
LRLM20	1	2	53.10	0.81	1.23	4.75	27.36	4.11	53.10	0.81	1.23	4.75	27.36	4.11
LRLM20	1	3	54.80	0.83	1.20	4.71	29.34	4.17	54.80	0.83	1.20	4.71	29.34	4.17
LRLM20	2	1	51.64	0.81	1.22	4.41	26.53	4.36	51.64	0.81	1.22	4.41	26.53	4.36
LRLM20	2	2	53.86	0.85	1.16	4.64	29.47	4.23	53.86	0.85	1.16	4.64	29.47	4.23
LRLM20	2	3	.	.	.	.	.	.	.	.	.	.	.	.
LRLM20	3	1	57.85	0.84	1.16	3.18	34.10	5.77	57.85	0.84	1.16	3.18	34.10	5.77
LRLM20	3	2	55.21	0.82	1.15	2.23	34.10	7.23	55.21	0.82	1.15	2.23	34.10	7.23
LRLM20	3	3	.	.	.	.	.	.	.	.	.	.	.	.
LRLM30	1	1	68.88	0.83	1.20	7.10	40.10	2.92	68.88	0.83	1.20	7.10	40.10	2.92
LRLM30	1	2	58.11	0.81	1.23	7.26	30.61	2.83	58.11	0.81	1.23	7.26	30.61	2.83
LRLM30	1	3	52.97	0.84	1.18	4.90	28.17	4.02	52.97	0.84	1.18	4.90	28.17	4.02
LRLM30	2	1	52.31	0.84	1.17	3.75	28.62	5.02	52.31	0.84	1.17	3.75	28.62	5.02
LRLM30	2	2	48.69	0.84	1.18	4.90	24.70	3.98	48.69	0.84	1.18	4.90	24.70	3.98
LRLM30	2	3	49.73	0.85	1.16	4.05	26.42	4.69	49.73	0.85	1.16	4.05	26.42	4.69
LRLM30	3	1	51.75	0.82	1.19	3.29	28.30	5.51	51.75	0.82	1.19	3.29	28.30	5.51
LRLM30	3	2	46.36	0.83	1.17	3.21	24.48	5.53	46.36	0.83	1.17	3.21	24.48	5.53
LRLM30	3	3	56.02	0.83	1.20	4.31	30.60	4.50	56.02	0.83	1.20	4.31	30.60	4.50

Fotosíntese do Dossel\_ Altura de pós-pastejo\_Capim Mulato II

MANEJO	ANO	BLOCO	PhotoPos	Kpos	IAFsolPos	IAFsombPos	PhotoSolPos	PhotoSombPos
LRL20	1	1	42.85	0.80	1.05	1.28	29.65	9.08
LRL20	1	2	51.05	0.87	1.06	1.88	33.76	8.08
LRL20	1	3	53.31	0.78	1.12	1.55	35.65	8.55
LRL20	2	1	56.27	0.76	1.17	1.70	36.20	8.11
LRL20	2	2	43.48	1.16	0.81	1.54	34.93	9.91
LRL20	2	3	48.08	0.78	1.08	1.29	33.65	9.11
LRL20	3	1	41.63	0.86	0.99	1.21	30.37	9.60
LRL20	3	2	45.99	0.82	1.06	1.38	31.72	8.99
LRL20	3	3	35.74	0.78	1.00	0.94	26.66	9.60
LRL30	1	1	47.39	0.82	1.15	2.23	27.60	7.02
LRL30	1	2	49.35	0.82	1.10	1.81	31.55	8.01
LRL30	1	3	50.66	0.79	1.15	1.92	31.22	7.66
LRL30	2	1	60.17	0.82	1.16	2.64	36.87	6.58
LRL30	2	2	35.49	0.74	1.13	1.36	21.62	8.08
LRL30	2	3	49.28	0.71	1.18	1.40	31.88	8.41
LRL30	3	1	56.76	0.83	1.11	1.97	37.10	7.85
LRL30	3	2	54.18	0.79	1.15	1.87	34.35	7.84
LRL30	3	3	47.93	0.82	1.09	1.61	31.60	8.44
LRLM20	1	1	42.34	0.80	1.08	1.39	28.05	8.70
LRLM20	1	2	42.88	0.81	1.09	1.56	27.36	8.32
LRLM20	1	3	38.36	0.79	0.99	0.94	29.34	9.88
LRLM20	2	1	39.96	0.81	1.06	1.36	26.53	8.76
LRLM20	2	2	43.57	0.72	1.13	1.18	29.47	8.81
LRLM20	2	3	.	.	.	.	.	.
LRLM20	3	1	36.50	0.77	0.88	0.59	34.10	11.09
LRLM20	3	2	39.41	0.81	0.91	0.76	34.10	10.88
LRLM20	3	3	.	.	.	.	.	.
LRLM30	1	1	57.78	0.83	1.08	1.68	40.10	8.60
LRLM30	1	2	43.64	0.84	1.03	1.33	30.61	9.19
LRLM30	1	3	45.36	0.77	1.15	1.62	28.17	8.06
LRLM30	2	1	32.88	0.76	0.91	0.65	28.62	10.44
LRLM30	2	2	39.33	0.66	1.20	1.18	24.70	8.15
LRLM30	2	3	46.13	0.64	1.31	1.55	26.42	7.48
LRLM30	3	1	36.01	0.81	0.96	0.88	28.30	10.09
LRLM30	3	2	30.94	0.76	0.96	0.76	24.48	9.75
LRLM30	3	3	43.91	0.82	1.04	1.31	30.60	9.13

Dataset - "Digestibilidade in vitro\_Tilly & Terry"

Treatamento	Ano	Bloco	INDOM %	INDOM (g kg <sup>-1</sup> )
LRDL30	3	1	57.1	571
LCDM20	3	1	66.9	669
LRDL30	3	1	66.6	666
LRDM20	3	1	74.4	744
LRDL20	3	1	54.2	542
LRDM30	3	1	47.9	479
LRDL20	3	2	54.0	540
LCDM20	3	2	52.1	521
LRDM30	3	2	55.2	552
LRDL30	3	2	48.3	483
LCDL30	3	2	43.8	438
LRDM20	3	2	48.0	480
LCDM20	3	3	49.8	498
LRDM30	3	3	46.7	467
LRDL20	3	3	48.0	480
LRDL30	3	3	54.0	540
LCDL30	3	3	52.3	523
LCDM20	1	1	62.5	625
LCDM20	1	2	60.3	603
LCDM20	1	3	63.5	635
LCDL30	1	1	63.5	635
LCDL30	1	2	56.5	565
LCDL30	1	3	59.0	590
LRDL20	1	1	59.2	638
LRDL20	1	2	57.2	597
LRDL20	1	3	64.1	641
LRDL30	1	1	53.1	531
LRDL30	1	2	54.4	544
LRDL30	1	3	60.1	601
LRDM20	1	1	58.4	584
LRDM20	1	2	58.5	585
LRDM20	1	3	60.1	601
LRDM30	1	1	50.3	503
LRDM30	1	2	52.2	522
LRDM30	1	3	49.7	497
LCDM20	2	1	65.9	659
LCDM20	2	2	60.9	609
LCDM20	2	3	60.6	606
LCDL30	2	1	65.5	655
LCDL30	2	2	63.9	639
LCDL30	2	3	59.0	590
LRDL20	2	1	62.5	625
LRDL20	2	2	66.8	668
LRDL20	2	3	64.8	648
LRDL30	2	1	66.0	660
LRDL30	2	2	62.6	626
LRDL30	2	3	61.4	614
LRDM20	2	1	63.2	632
LRDM20	2	2	59.3	593
LRDM30	2	1	46.9	469
LRDM30	2	2	51.4	514
LRDM30	2	3	50.6	506

Dataset - "Fracionamento de CHO e Proteína"

Treatamento	Ano	Bloco	CT	CNP	CHO_B2	CHO_C	hemicelulose	celulose	N-FDA	N-FDN	NNP	NS	PB_A	PB_B1	PB_B2	PB_B3	PB_C	PbD
LRDL30	1	1	71.02	1.86	55.18	13.98	34.64	25.30	5.8	44.7	14.5	24.5	14.5	10.0	30.8	38.9	5.8	4.40
LCDL30	1	2	70.32	7.76	53.33	9.24	32.89	23.58	6.6	46.6	17.4	21.8	17.4	4.4	31.6	40.0	6.6	4.63
LRDL30	1	3	71.99	6.14	54.97	10.88	34.32	23.89	3.6	44.6	18.1	21.8	18.1	3.7	33.6	41.0	3.6	5.84
LCDL30	2	1	68.66	2.73	53.18	12.75	31.51	26.43	3.2	39.5	14.3	21.7	14.3	7.4	38.8	36.3	3.2	8.58
LRDL30	2	2	72.27	8.62	52.84	10.80	31.52	25.46	5.7	30	8.8	20.4	8.8	11.6	49.6	24.3	5.7	3.92
LCDL30	2	3	72.94	4.87	58.93	9.14	33.05	27.75	3.7	29.1	19.4	40.5	19.4	21.1	30.4	25.4	3.7	4.18
LRDL30	3	1	70.89	5.49	54.34	11.06	32.13	25.21	3.8	36.2	13.7	17	13.7	3.3	46.8	32.4	3.8	7.07
LCDL30	3	2	73.36	11.40	53.74	8.22	32.92	23.80	3.9	47.1	13.5	23.1	13.5	9.6	29.8	43.2	3.9	7.87
LRDL30	3	3	68.91	6.88	54.92	7.10	32.13	24.04	2.6	31.7	10.4	15.9	10.4	5.5	52.4	29.1	2.6	9.25
LCDM20	1	1	68.21	2.11	52.74	13.36	32.79	24.16	5.4	45.1	14.2	26.4	14.2	12.2	28.5	39.7	5.4	6.58
LCDM20	1	2	68.64	2.48	54.97	11.19	34.81	23.73	5.9	48.4	16.1	20.2	16.1	4.1	31.4	42.5	5.9	6.81
LCDM20	1	3	68.24	3.21	53.99	11.04	32.80	24.71	7.2	44.8	16.7	20.8	16.7	4.1	34.4	37.6	7.2	4.78
LRDL20	2	1	67.38	4.17	53.78	9.43	31.35	24.77	3.3	38.8	18	19.6	18	1.6	41.6	35.5	3.3	9.99
LCDM20	2	2	71.50	3.40	59.27	8.83	33.19	27.11	4.9	32.3	17.4	20.9	17.4	3.5	46.8	27.4	4.9	4.94
LRDL20	2	3	70.30	3.63	57.18	9.49	31.93	27.39	5.8	27.8	17.6	23.2	17.6	5.6	49.0	22.0	5.8	3.92
LCDM20	3	1	71.33	6.74	56.09	8.50	33.07	25.04	5	28	16.7	19.2	16.7	2.5	52.8	23.0	5.0	5.38
LRDL20	3	2	70.66	6.77	53.68	10.21	32.31	24.76	4.7	46	11.1	23.4	11.1	12.3	30.6	41.3	4.7	9.44
LCDM20	3	3	68.81	3.24	53.94	11.63	33.52	25.03	6.1	46.4	7.2	19.4	7.2	12.2	34.2	40.3	6.1	7.00
LRDL20	1	1	73.17	1.19	60.47	11.52	33.87	29.64	6.9	46.5	17.1	40.7	17.1	23.6	12.8	39.6	6.9	2.51
LRDL20	1	2	71.67	3.55	58.16	9.96	33.73	27.31	6.3	43.6	14.7	28.0	14.7	13.3	28.4	37.3	6.3	3.71
LRDL20	1	3	68.79	2.55	53.27	12.97	32.68	25.66	6.0	46.9	19.3	21.2	19.3	1.9	31.9	40.9	6.0	4.69
LRDL20	2	1	69.75	3.58	54.27	11.89	32.82	26.63	4	32.7	14.3	17.5	14.3	3.2	49.8	28.7	4	8.40
LRDL20	2	2	70.00	5.48	54.99	9.53	31.59	26.43	6.2	34.2	15.1	40.7	15.1	25.6	25.1	28.0	6.2	5.49
LRDL20	2	3	70.90	6.03	56.64	8.23	33.33	25.56	4	40	13.5	38.3	13.5	24.8	21.7	36.0	4	6.45
LRDL20	3	1	73.67	6.42	57.83	9.42	34.14	26.42	5.7	39.1	20.9	52	20.9	31.1	8.9	33.4	5.7	4.56
LRDL20	3	2	71.05	6.88	54.93	9.24	32.28	25.65	3.1	29.5	11.2	21.5	11.2	10.3	49.0	26.4	3.1	7.26
LRDL20	3	3	72.06	7.72	55.25	9.09	31.37	27.00	5.2	38.2	5.8	29.7	5.8	23.9	32.1	33.0	5.2	4.79
LRDL30	1	1	71.72	0.94	58.37	12.40	34.91	28.57	6.6	41.1	21.6	26.5	21.6	4.9	32.4	34.5	6.6	2.70
LRDL30	1	2	71.00	0.59	60.67	9.74	34.02	29.58	5.9	41.0	10.3	21.2	10.3	10.9	37.8	35.1	5.9	3.72
LRDL30	1	3	70.77	3.57	57.07	10.12	32.11	28.25	3.8	44.3	16.2	17.2	16.2	1	38.5	40.5	3.8	5.64
LRDL30	2	1	68.54	4.21	52.24	12.09	30.50	26.62	2.9	39	17.5	19.4	17.5	1.9	41.6	36.1	2.9	10.42
LRDL30	2	2	72.48	8.47	55.33	8.68	30.80	27.28	5.5	31.6	14.9	16.4	14.9	1.5	52.0	26.1	5.5	4.05
LRDL30	2	3	70.93	4.84	56.34	9.76	31.28	27.90	3.7	29.1	11.1	19.4	11.1	8.3	51.5	25.4	3.7	6.96
LRDL30	3	1	73.10	6.70	55.29	11.11	32.80	26.15	3.7	29.4	12.2	25.7	12.2	13.5	44.9	25.7	3.7	4.54
LRDL30	3	2	73.21	8.69	56.11	8.41	32.20	25.72	3.8	30.6	19.4	23.5	19.4	4.1	45.9	26.8	3.8	5.18
LRDL30	3	3	72.34	8.95	55.86	7.52	31.09	25.35	3.2	26.1	13.1	28.7	13.1	15.6	45.2	22.9	3.2	5.07
LRDM20	1	1	72.13	3.34	53.65	15.15	34.66	27.72	4.5	43.6	14.3	27.5	14.3	13.2	28.9	39.1	4.5	5.05
LRDM20	1	2	70.38	4.50	56.53	9.35	32.72	26.85	6.3	44.4	17.0	17.8	17.0	0.8	37.8	38.1	6.3	4.43
LRDM20	1	3	.	.	.	.	.	.	3.6	44.2	17.5	19.1	17.5	1.6	36.7	40.6	3.6	8.78
LRDM20	2	1	73.78	8.65	56.04	9.08	31.83	26.98	5	33.6	16.4	16.6	16.4	0.2	49.8	28.6	5.0	4.22
LRDM20	2	2	74.73	8.18	56.45	10.10	32.59	27.50	6.6	28.9	10.6	34.9	10.6	24.3	36.2	22.3	6.6	2.70
LRDM20	3	1	69.91	1.43	55.16	13.33	35.93	24.82	2.9	35.3	15.7	20.3	15.7	4.6	44.4	32.4	2.9	5.95
LRDM20	3	2	74.16	10.19	52.61	11.36	32.58	25.44	3.1	27.7	8.4	14.9	8.4	6.5	57.4	24.6	3.1	5.11
LRDM30	1	1	73.11	2.24	61.07	9.80	33.10	30.93	7.5	41.4	14.1	25.6	14.1	11.5	33.0	33.9	7.5	1.97
LRDM30	1	2	72.28	2.92	60.54	8.82	34.40	29.51	5.8	43.5	16.4	22.7	16.4	6.3	33.8	37.7	5.8	3.78
LRDM30	1	3	75.23	7.17	59.56	8.51	32.77	29.62	8.8	42.3	19.8	20.8	19.8	1.0	36.9	33.5	8.8	1.00
LRDM30	2	1	80.11	9.49	62.93	7.70	33.16	30.72	10.9	20.2	15.2	14.8	15.2	.	65.0	9.3	10.9	.
LRDM30	2	2	74.07	8.91	56.89	8.27	30.73	28.33	6.8	30.7	15.3	28.2	15.3	12.9	41.1	23.9	6.8	1.70
LRDM30	2	3	76.86	5.42	63.17	8.27	34.56	30.77	8.4	25.3	21.1	45.9	21.1	24.8	28.8	16.9	8.4	0.45
LRDM30	3	1	75.29	6.81	59.55	8.94	33.34	27.79	3.1	16.9	12.6	30.9	12.6	18.3	52.2	13.8	3.1	2.38
LRDM30	3	2	77.48	7.92	59.84	9.72	34.03	28.37	3.3	25.5	16.5	20.9	16.5	4.4	53.6	22.2	3.3	1.57
LRDM30	3	3	74.31	7.66	59.02	7.63	33.42	28.08	5.3	32.1	10.7	33.7	10.7	23	34.2	26.8	5.3	2.69

Dataset - "Composição químico-bromatológica"

Tratamento	Ano	Bloco	g/kg													%						
			aFDNom	FDaom	LIgOm	MS 100C	MM	MO	MO	EE	FDN	FDA	PB	aFDNom	FDaom	LIgOm	MS%	MM	MO	EE	FDN	FDA
LCDL30	1	1	657.62	311.26	58.26	905.30	128.35	871.65	24.46	691.60	345.25	137.02	65.76	31.13	5.83	90.53	12.83	87.17	2.45	69.16	34.52	13.70
LCDL30	1	2	603.14	274.27	38.51	913.14	121.63	878.37	36.67	625.68	206.81	138.46	60.31	27.43	3.85	91.31	12.16	87.84	3.67	62.57	29.68	13.85
LCDL30	1	3	627.35	284.18	45.32	905.83	118.42	881.58	34.19	658.45	315.27	127.51	62.74	28.42	4.53	90.58	11.84	88.16	3.42	65.85	31.53	12.75
LCDL30	2	1	632.49	317.39	53.13	912.02	125.74	874.26	36.68	659.33	344.23	151.00	63.25	31.74	5.31	91.20	12.57	87.43	3.67	65.93	34.42	15.10
LCDL30	2	2	614.84	299.59	45.01	905.69	115.67	884.33	32.16	636.46	321.21	129.50	61.48	29.96	4.50	90.57	11.57	88.43	3.22	63.65	32.12	12.95
LCDL30	2	3	646.04	315.53	38.07	900.31	132.40	867.60	31.14	680.66	350.15	107.07	64.60	31.55	3.81	90.03	13.24	86.76	3.11	68.07	35.02	10.71
LCDL30	3	1	619.49	298.20	46.07	909.00	121.07	878.93	29.85	654.02	332.73	140.19	61.95	29.82	4.61	90.90	12.11	87.89	2.99	65.40	33.27	14.02
LCDL30	3	2	601.44	272.20	34.25	898.81	102.36	897.64	25.52	619.56	290.32	138.55	60.14	27.22	3.42	89.88	10.24	89.76	2.55	61.96	29.03	13.86
LCDL30	3	3	591.30	269.98	29.58	905.08	125.99	874.01	35.29	620.21	298.90	149.67	59.13	27.00	2.96	90.51	12.60	87.40	3.53	62.02	29.89	14.97
LCDM20	1	1	625.11	297.25	55.67	904.72	128.96	871.04	30.66	661.01	333.16	158.31	62.51	29.73	5.57	90.47	12.90	87.10	3.07	66.10	33.32	15.83
LCDM20	1	2	632.01	283.95	46.63	908.51	124.53	875.47	29.27	661.59	313.53	159.80	63.20	28.39	4.66	90.85	12.45	87.55	2.93	66.16	31.35	15.98
LCDM20	1	3	621.07	293.05	45.99	906.12	127.38	872.62	35.36	650.30	322.28	154.85	62.11	29.31	4.60	90.61	12.74	87.26	3.54	65.03	32.23	15.49
LCDM20	2	1	600.48	286.96	39.29	910.18	131.68	868.32	33.51	632.08	318.57	161.01	60.05	28.70	3.93	91.02	13.17	86.83	3.35	63.21	31.86	16.10
LCDM20	2	2	639.80	307.92	36.78	912.83	127.10	872.90	27.10	680.96	349.07	130.82	63.98	30.79	3.68	91.28	12.71	87.29	2.71	68.10	34.91	13.08
LCDM20	2	3	632.68	313.42	39.52	907.73	128.49	864.37	31.98	666.69	347.44	136.51	63.27	31.34	3.95	90.77	12.85	86.44	3.20	66.67	34.74	13.65
LCDM20	3	1	616.54	285.83	35.42	908.30	119.89	880.11	31.69	645.92	315.20	135.09	61.65	28.58	3.54	90.83	11.99	88.01	3.17	64.59	31.52	13.51
LCDM20	3	2	613.25	290.11	42.55	903.86	113.33	886.67	29.19	639.89	315.74	150.91	61.33	29.01	4.26	90.39	11.33	88.67	2.92	63.89	31.57	15.09
LCDM20	3	3	633.95	298.78	48.47	900.94	123.61	876.39	28.00	655.68	320.52	160.25	63.39	29.88	4.85	90.09	12.36	87.64	2.80	65.57	32.05	16.03
LRDL20	1	1	683.07	344.35	47.98	907.69	127.41	872.59	22.80	719.83	369.87	118.11	68.31	34.43	4.80	90.77	12.74	87.26	2.28	71.98	36.99	11.81
LRDL20	1	2	651.84	314.58	41.51	911.58	127.26	872.74	23.73	681.19	343.94	132.32	65.18	31.46	4.15	91.16	12.73	87.27	2.37	68.12	34.39	13.23
LRDL20	1	3	637.45	310.66	54.04	903.59	130.16	869.84	36.99	662.43	335.63	144.97	63.74	31.07	5.40	90.36	13.02	86.98	3.70	66.24	33.56	14.50
LRDL20	2	1	643.99	315.81	49.55	904.96	116.89	883.11	24.48	661.64	333.47	161.15	64.40	31.58	4.95	90.50	11.69	88.31	2.45	66.16	33.35	16.12
LRDL20	2	2	619.97	304.03	39.70	905.92	122.62	877.38	20.41	645.22	329.28	156.98	62.00	30.40	3.97	90.59	12.26	87.74	2.04	64.52	32.93	15.70
LRDL20	2	3	623.16	289.89	34.28	899.94	125.28	874.72	30.49	648.67	315.41	135.23	62.32	28.99	3.43	89.99	12.53	87.47	3.05	64.87	31.54	13.52
LRDL20	3	1	644.85	303.45	39.27	913.89	119.66	880.34	25.04	672.53	331.12	118.60	64.48	30.34	3.93	91.39	11.97	88.03	2.50	67.25	33.11	11.86
LRDL20	3	2	617.81	295.03	38.50	910.59	124.76	875.24	27.67	641.72	318.94	137.07	61.78	29.50	3.85	91.06	12.48	87.52	2.77	64.17	31.89	13.71
LRDL20	3	3	621.59	307.88	37.89	906.65	128.98	871.02	20.84	643.40	329.69	129.60	62.16	30.79	3.79	90.67	12.90	87.10	2.08	64.34	32.97	12.96
LRDL30	1	1	686.51	337.39	51.68	910.42	125.15	874.85	32.21	707.77	367.34	125.46	68.65	33.74	5.17	91.04	12.51	87.49	3.22	70.78	36.73	12.55
LRDL30	1	2	676.63	336.40	40.59	913.46	132.39	867.61	29.54	704.09	363.86	128.04	67.66	33.64	4.06	91.35	13.24	86.76	2.95	70.41	36.39	12.80
LRDL30	1	3	645.76	324.64	42.18	907.53	126.78	873.22	35.86	671.97	350.85	129.64	64.58	32.46	4.22	90.75	12.68	87.32	3.59	67.20	35.09	12.96
LRDL30	2	1	621.55	316.58	50.37	904.23	121.56	878.44	31.13	643.31	338.34	161.92	62.15	31.66	5.04	90.42	12.16	87.84	3.11	64.33	33.83	16.19
LRDL30	2	2	617.01	309.00	36.18	908.20	120.29	879.71	27.07	640.10	332.09	127.84	61.70	30.90	3.62	90.82	12.03	87.97	2.71	64.01	33.21	12.78
LRDL30	2	3	632.53	319.68	40.68	906.96	129.72	870.28	29.10	660.98	348.13	131.86	63.25	31.97	4.07	90.70	12.97	87.03	2.91	66.10	34.81	13.19
LRDL30	3	1	635.82	307.78	46.28	921.83	122.05	877.95	27.54	664.00	335.96	119.42	63.58	30.78	4.63	92.18	12.20	87.80	2.75	66.40	33.60	11.94
LRDL30	3	2	614.26	292.21	35.06	900.78	123.03	876.97	28.24	645.21	323.16	116.64	61.43	29.22	3.51	90.08	12.30	87.70	2.82	64.52	32.52	11.66
LRDL30	3	3	595.80	284.86	31.35	911.39	133.61	863.93	26.70	633.83	322.89	116.31	59.58	28.49	3.13	91.14	13.36	86.39	2.67	63.38	32.29	11.63
LRDM20	1	1	687.00	340.36	63.11	907.21	119.80	880.20	26.50	687.99	367.90	132.36	68.70	34.04	6.31	90.72	11.98	88.02	2.65	68.80	36.79	13.24
LRDM20	1	2	634.72	307.48	38.97	910.23	123.88	876.12	35.41	658.87	331.63	136.88	63.47	30.75	3.90	91.02	12.39	87.61	3.54	65.89	33.16	13.69
LRDM20	1	3	625.87	307.62	37.85	911.07	122.15	877.85	21.29	651.21	332.96	118.80	62.59	30.76	3.78	91.11	12.22	87.78	2.13	65.12	33.30	11.88
LRDM20	2	1	643.02	317.10	42.07	907.73	110.02	889.98	26.16	665.48	339.57	116.53	64.30	31.71	4.21	90.77	11.00	89.00	2.62	66.55	33.96	11.65
LRDM20	2	2	663.00	303.73	55.52	906.87	124.58	875.42	41.74	684.82	325.55	134.62	66.30	30.37	5.55	90.69	12.46	87.54	4.17	68.48	32.55	13.46
LRDM20	2	3	627.52	301.73	47.34	905.38	112.13	887.87	26.34	639.77	313.98	119.90	62.75	30.17	4.73	90.54	11.21	88.79	2.63	63.98	31.40	11.99
LRDM30	1	1	681.13	350.11	40.83	910.95	125.62	874.38	26.28	708.68	377.66	117.02	68.11	35.01	4.08	91.09	12.56	87.44	2.63	70.87	37.77	11.70
LRDM30	1	2	675.87	331.86	36.75	913.86	127.52	872.48	23.19	693.59	349.58	126.50	67.59	33.19	3.68	91.39	12.75	87.25	2.32	69.36	34.96	12.65
LRDM30	1	3	659.37	331.66	35.46	909.78	114.49	885.51	32.24	680.67	352.96	100.95	65.94	33.17	3.55	90.98	11.45	88.55	3.22	68.07	35.30	10.09
LRDM30	2	1	670.85	339.28	32.07	918.96	115.66	884.34	13.87	706.29	347.72	69.33	67.08	33.93	3.21	91.90	11.57	88.43	1.39	70.63	37.47	6.93
LRDM30	2	2	625.09	317.80	34.46	913.84	122.52	877.48	23.40	651.56	344.27	113.37	62.51	31.78	3.45	91.38	12.25	87.75	2.34	65.16	34.43</	

Análises de Pré-pastejo e Contínuos = 1									
Ano	Bloco	Tratamento	Acúmulo de Forragem Total (kg/MS/ha/ano)	Taxa Acúmulo de Forragem (kg/MS/ha/dia)	(Pré-Contínuo= 1) Massa de Forragem kg MS ha <sup>-1</sup>	(Pré-Contínuo= 1) Massa de Folha kg MS ha <sup>-1</sup>	(Pré-Contínuo= 1) Massa de Colmo kg MS ha <sup>-1</sup>	(Pré-Contínuo= 1) Massa de M.Morto kg MS ha <sup>-1</sup>	% Composição Morfológica MI
				TxAcf	MFpreCont	MfolhaPreCont	McolmoPreCont	MmortePreCont	%FolhaPreCont
1	1	LC20	9430	112	6246	2050	1877	2319	34.2
1	2	LC20	7378	88	6403	2144	1813	2446	33.8
1	3	LC20	5980	71	6124	1666	1959	2499	27.6
2	1	LC20	5440	44	6602	1642	1666	3293	24.6
2	2	LC20	7982	76	6459	1894	1604	2961	29.8
2	3	LC20	8414	80	5842	1668	1455	2718	29.2
3	1	LC20	10076	96	6872	1563	1756	3553	22.6
3	2	LC20	10684	102	7276	1900	1807	3568	26.6
3	3	LC20	9633	92	6829	2073	1973	2782	31.2
1	1	LC30	7361	88	7755	2245	2707	2804	28.9
1	2	LC30	10896	130	7550	2491	2710	2349	33.4
1	3	LC30	10545	126	7328	2520	2534	2274	34.9
2	1	LC30	7376	88	9102	2478	2505	4119	27.4
2	2	LC30	6803	65	7965	2538	2246	3181	31.6
2	3	LC30	12065	143	7364	2040	2178	3147	27.6
3	1	LC30	11240	134	10017	2509	2711	4796	25.3
3	2	LC30	12815	122	8032	1887	2127	4018	24.7
3	3	LC30	11294	108	9559	2412	2726	4422	24.9
1	1	LRL20	7593	105	6651	2908	1726	2017	43.5
1	2	LRL20	12112	146	6916	3001	1874	2041	42.8
1	3	LRL20	10213	115	7569	2726	2175	2335	35.6
2	1	LRL20	6857	146	7312	3022	1975	2314	41.9
2	2	LRL20	7219	143	6121	2900	1543	1677	48.0
2	3	LRL20	7551	88	6171	2573	1520	2077	42.0
3	1	LRL20	9168	88	7688	2940	1903	2845	38.5
3	2	LRL20	7854	58	6421	2954	1563	1904	45.8
3	3	LRL20	11136	113	8063	3662	1740	2661	45.4
1	1	LRL30	9748	111	9046	3540	2712	2793	39.4
1	2	LRL30	10637	125	7810	3658	2453	1700	46.8
1	3	LRL30	8468	95	7645	3208	2476	1961	41.9
2	1	LRL30	9388	98	9540	3834	2772	2765	40.4
2	2	LRL30	8663	102	8956	3458	2660	2838	38.7
2	3	LRL30	8246	106	7752	3125	2332	2481	39.8
3	1	LRL30	8482	65	12027	3854	3276	4897	32.3
3	2	LRL30	7588	87	10673	3728	3008	3937	35.0
3	3	LRL30	13081	145	10509	3889	2824	3457	38.1
1	1	LRM20	7161	84	6502	3237	1802	1463	49.7
1	2	LRM20	6752	110	6760	3297	1855	1609	50.5
1	3	LRM20	7213	85	5614	2394	1436	1785	42.5
2	1	LRM20	7138	73	7061	3293	1797	1971	47.6
2	2	LRM20	7282	79	7044	3135	1702	2207	44.8
3	1	LRM20	7765	54	7670	3829	1842	1998	50.2
3	2	LRM20	9553	98	7765	3363	2180	3311	37.9
1	1	LRM30	6771	79	10939	4722	3814	2404	43.2
1	2	LRM30	6298	73	10165	5094	3327	1744	50.1
1	3	LRM30	13603	158	11353	4614	3875	2864	40.6
2	1	LRM30	7976	78	9394	3683	2746	2964	39.2
2	2	LRM30	8969	91	9969	4460	3060	3281	41.3
2	3	LRM30	12274	129	9632	3685	2756	3190	38.3
3	1	LRM30	6992	97	9036	3176	2281	3579	33.9
3	2	LRM30	8147	66	10340	3676	2354	4310	35.5
3	3	LRM30	8803	70	10310	4503	2752	3055	43.7

Massa de forragem e comp. morf. Pós-pastejo

Análises de Pós-pastejo = 2													
Ano	Bloco	Tratamento	Massa de Forragem kg MS ha <sup>-1</sup>	Massa de Folha kg MS ha <sup>-1</sup>	Massa de Colmo kg MS ha <sup>-1</sup>	Massa de M.Morto kg MS ha <sup>-1</sup>	% Composição Morfológica MF (Pós = 2)	Relação Folha:Colmo	Razão de Área (Folhar / Colmo) (cm <sup>2</sup> g <sup>-1</sup> )	Razão Peso (Folhar / Colmo) (g g <sup>-1</sup> )	Índice de Área (Folhar / Colmo) (g g <sup>-1</sup> )	Área (cm <sup>2</sup> )	
			MFpos	MfolhaPos	McolmoPos	MmortePos	%FolhaPos %ColmoPos %MortePos	Folha:ColmoPos	RAFpos	RPFpos	IAFpos	AFEp	
1	1	LRL20	4654	1684	2644	10.7	34.9	54.4	0.3199	9.1	0.0503	1.0	54.8
1	2	LRL20	3949	733	1407	17.7	35.9	44.4	0.5207	16.5	0.1017	1.2	64.8
1	3	LRL20	4547	943	1414	21.2	30.8	48.0	0.6667	18.0	0.1070	1.6	57.1
2	1	LRL20	5633	1024	1564	18.2	28.6	53.2	0.6551	14.8	0.1068	1.7	67.9
2	2	LRL20	4080	1149	1480	26.5	36.0	37.5	0.7920	21.5	0.1173	1.1	45.8
2	3	LRL20	4335	925	1355	21.0	31.6	47.4	0.6829	19.7	0.1252	1.1	79.3
3	1	LRL20	5686	1154	1429	20.1	25.3	54.6	0.8076	15.9	0.0979	2.0	74.2
3	2	LRL20	4683	933.0	1302.0	20.1	27.5	52.4	0.7166	16.6	0.1126	1.5	77.6
3	3	LRL20	4694	681	1186	14.8	25.2	60.0	0.5738	21.7	0.1485	0.8	77.4
1	1	LRL30	6187	1052	2381	18.5	36.8	44.7	0.4420	12.4	0.0870	1.4	64.9
1	2	LRL30	4850	672	1815	13.6	38.7	47.7	0.3702	12.1	0.0799	1.0	68.7
1	3	LRL30	5237	806	2091	15.7	39.8	44.5	0.3856	11.3	0.0631	1.5	51.6
2	1	LRL30	7266	1107	2222	15.2	30.4	54.4	0.4980	8.3	0.0536	1.7	66.9
2	2	LRL30	6708	1014	2861	15.7	42.5	41.8	0.3545	10.0	0.0711	1.5	70.3
2	3	LRL30	4952	876	1867	17.4	37.3	45.3	0.4693	16.9	0.0990	1.7	76.8
3	1	LRL30	8652	1069	2626	13.3	30.5	56.2	0.4073	8.0	0.0500	1.7	80.3
3	2	LRL30	8132	1435	2557	17.8	31.5	50.7	0.5612	7.9	0.0582	2.2	48.1
3	3	LRL30	6495	910	1955	13.2	29.4	57.4	0.4654	10.4	0.0602	1.8	70.2
1	1	LRM20	3718	447	1253	12.1	33.7	54.3	0.3563	11.7	0.0955	0.5	68.9
1	2	LRM20	4620	634	1599	13.9	34.4	51.7	0.3961	12.2	0.0847	0.9	68.2
1	3	LRM20	2810	249	1071	9.0	38.2	52.9	0.2327	11.8	0.0897	0.3	73.8
2	1	LRM20	4655	822	1712	17.6	36.7	45.8	0.4801	12.4	0.0941	1.1	65.4
2	2	LRM20	4164	737	1276	17.7	30.7	51.6	0.5773	17.6	0.1229	1.1	76.0
3	1	LRM20	4605	657	1254	14.0	27.7	58.3	0.5241	11.6	0.0978	0.8	82.6
3	2	LRM20	4894	818	1394	17.2	28.1	54.7	0.5870	13.2	0.1075	1.2	81.6
1	1	LRM30	6137	578	2501	9.4	40.7	49.8	0.2313	5.4	0.0404	0.8	68.7
1	2	LRM30	5625	701	2194	12.5	39.0	48.5	0.3197	16.1	0.0825	1.2	45.6
1	3	LRM30	3128	253	1604	8.1	51.3	40.6	0.1578	10.0	0.0809	0.3	82.1
2	1	LRM30	3842	444	1723	11.6	44.8	43.6	0.2576	11.9	0.0990	0.5	84.4
2	2	LRM30	5998	1304	2195	22.2	37.3	40.5	0.5941	11.6	0.0705	1.6	66.1
2	3	LRM30	4339	566	1694	12.4	37.0	50.7	0.3341	14.2	0.0983	0.7	95.7
3	1	LRM30	6008	1336	1691	21.5	28.1	50.4	0.7905	14.5	0.0995	2.0	74.3
3	2	LRM30	6633	843	1939	12.7	29.1	58.2	0.4349	8.1	0.0622	1.1	81.7
3	3	LRM30	4861	595	1531	12.9	31.8	55.3	0.3889	14.0	0.0987	0.8	95.0

Massa de forragem e comp. morf. Altura média do dossel

Análises variáveis na altura média de Pré-Pós-pastejo e Contínuo = 3															
Ano	Bloco	Tratamento	Massa de Forragem ha-1	kg MS	Massa de Folha MS ha-1	kg	Massa de Colmo MS ha-1	kg	Massa de M.Morto MS ha-1	kg MS	% Composição Morfológica MF (Altura média = 3)	Índice de Área Foliar	Área Foliar Específica (cm <sup>2</sup> g <sup>-1</sup> )		
Ano	Bloco	Tratamento	MFaltMed		MfolhaAltMed		McolmoAltMed		MmortoAltMed		%FolhaAltMed	%ColmoAltMed	%MortoAltMed	IAFAltMed	AFEAltMed
1	1	L.RL.30	7616.5		2296.3		2546.5		2773.7		28.9	33.3	37.8	4.1	57.6
1	1	L.RM20	5110.2		1841.9		1527.8		1740.5		30.9	30.7	38.4	3.4	59.6
1	1	L.RL.20	5652.5		1723.7		1705.7		2330.4		27.1	30.7	42.3	3.2	53.5
1	1	L.RM30	8538.0		2650.0		3157.3		2730.7		26.3	37.8	35.9	4.1	59.5
1	2	L.RL.20	5432.5		1867.1		1640.7		1876.3		31.3	31.6	37.2	3.2	58.5
1	2	L.RM30	7894.8		2897.7		2760.5		2236.7		31.3	35.9	32.8	5.2	44.3
1	2	L.RL.30	6330.3		2165.0		2133.7		2031.6		30.2	35.0	34.8	4.2	58.0
1	2	L.RM20	5689.8		1965.1		1727.0		1997.7		32.2	30.5	37.3	3.1	61.5
1	3	L.RM30	7240.1		2433.4		2739.5		2067.3		24.4	42.7	32.9	4.3	70.1
1	3	L.RL.20	6058.2		1834.2		1794.5		2263.1		28.4	29.7	39.4	3.3	54.6
1	3	L.RL.30	6440.7		2007.1		2283.0		2150.6		28.8	36.0	35.2	3.6	52.5
1	3	L.RM20	4212.4		1321.7		1253.6		1637.2		25.7	31.9	42.3	2.8	61.9
2	1	L.RL.30	8403.2		2470.6		2497.2		3350.9		27.8	29.6	42.8	3.8	63.5
2	1	L.RM20	5857.8		2057.6		1754.7		2045.4		32.6	31.1	36.3	3.5	58.1
2	1	L.RL.20	6472.5		2023.5		1769.6		2452.2		30.0	27.6	42.4	3.4	65.7
2	1	L.RM30	6617.7		2063.5		2234.6		2319.6		25.4	37.0	37.6	3.7	73.3
2	2	L.RL.20	5100.3		2024.6		1496.9		1578.8		37.3	30.6	32.1	3.0	47.4
2	2	L.RM30	7983.5		2882.1		2627.3		2832.4		31.7	32.8	35.5	4.3	74.0
2	2	L.RL.30	7832.3		2236.2		2760.3		2835.8		27.2	36.1	36.7	3.8	64.3
2	2	L.RM20	5603.9		1935.9		1489.1		2178.9		31.3	27.5	41.3	3.3	64.5
2	3	L.RM30	6985.3		2125.6		2225.2		2755.6		25.3	32.8	41.9	3.6	80.8
2	3	L.RL.20	5252.9		1749.1		1437.3		2066.5		31.5	28.2	40.3	2.8	71.9
2	3	L.RL.30	6351.8		2001.0		2099.8		2344.5		28.6	33.6	38.9	3.7	68.5
3	1	L.RL.30	10339.7		2461.8		2950.7		4927.2		22.8	29.0	48.2	4.3	68.6
3	1	L.RM20	6137.5		2243.3		1548.1		2346.1		32.1	25.8	42.1	3.6	69.3
3	1	L.RL.20	6687.1		2047.1		1665.8		2974.1		29.3	25.0	45.7	3.5	68.5
3	1	L.RM30	7522.0		2256.2		1985.7		3280.0		27.7	26.8	45.6	3.8	68.0
3	2	L.RL.20	5551.9		1943.4		1432.3		2176.3		33.0	25.5	41.5	3.6	68.3
3	2	L.RM30	8486.2		2259.3		2146.5		4080.4		24.1	25.9	50.0	3.7	75.4
3	2	L.RL.30	9402.6		2581.5		2782.3		4038.8		26.4	29.1	44.5	3.9	57.9
3	2	L.RM20	6329.4		2090.5		1786.8		2996.3		27.5	26.4	46.1	3.1	73.6
3	3	L.RM30	7585.4		2549.3		2141.5		2894.6		28.3	29.3	42.4	4.1	81.3
3	3	L.RL.20	6378.1		2171.3		1462.9		2743.9		30.1	23.0	46.9	3.8	68.8
3	3	L.RL.30	8501.7		2399.3		2389.3		3637.4		25.7	28.3	45.3	4.3	63.3
1	1	L.C.20	6246		2050		1877		2319		34.2	29.6	36.2	3.8	56.0
1	1	L.C.30	7755		2245		2707		2804		28.9	35.2	35.8	4.0	58.8
1	2	L.C.20	6403		2144		1813		2446		33.8	28.5	37.7	3.5	65.9
1	2	L.C.30	7550		2491		2710		2349		33.4	35.9	30.7	4.5	57.6
1	3	L.C.20	6124		1666		1959		2499		27.6	31.4	41.0	2.6	72.1
1	3	L.C.30	7328		2520		2534		2274		34.9	34.8	30.3	4.1	67.7
2	1	L.C.20	6602		1642		1666		3293		24.6	25.0	50.5	3.5	62.7
2	1	L.C.30	9102		2478		2505		4119		27.4	27.2	45.4	4.8	62.4
2	2	L.C.20	6459		1894		1604		2961		29.8	24.9	45.4	3.1	64.0
2	2	L.C.30	7965		2538		2246		3181		31.6	28.2	40.2	4.9	60.0
2	3	L.C.20	5842		1668		1455		2718		29.2	24.8	45.9	3.1	67.2
2	3	L.C.30	7364		2040		2178		3147		27.6	29.5	42.9	3.8	63.0
3	1	L.C.20	6872		1563		1756		3553		22.6	25.6	51.8	2.7	73.8
3	1	L.C.30	10017		2509		2711		4796		25.3	27.3	47.4	4.9	73.0
3	2	L.C.20	7276		1900		1807		3568		26.6	25.4	48.0	3.0	78.2
3	2	L.C.30	8032		1887		2127		4018		24.7	26.6	48.7	3.4	81.2
3	3	L.C.20	6829		2073		1973		2782		31.2	26.1	42.8	3.1	85.6
3	3	L.C.30	9559		2412		2726		4422		24.9	27.8	47.3	3.7	74.0

Taxa de Acúmulo dos componentes morfológicos

Tratamento	Ano	Bloco	Taxa Acúmulo de Forragem dos componentes morfológicos (kg/MS/ha/dia)		
			LeafAR	StemAR	DeadAR
LRL30	1	1	43.66	33.02	34.25
LRM20	1	1	41.83	23.32	18.99
LRL20	1	1	45.82	27.84	31.71
LRM30	1	1	33.98	27.45	17.3
LRL20	1	2	62.54	39.78	43.76
LRM30	1	2	36.7	23.97	12.57
LRL30	1	2	58.13	45.92	31.43
LRM20	1	2	55.59	29.34	25.25
LRM30	1	3	64.28	53.99	39.91
LRL20	1	3	45.4	31.33	33.48
LRL30	1	3	39.9	30.71	24.67
LRM20	1	3	36.69	21.41	27.09
LRL30	2	1	39.72	28.33	25.11
LRM20	2	1	34.52	18.57	19.43
LRL20	2	1	61.26	38.92	46.15
LRM30	2	1	30.66	22.86	24.68
LRL20	2	2	60.78	36.29	38.28
LRM30	2	2	37.59	27.36	26.03
LRL30	2	2	39.27	30.21	32.03
LRM20	2	2	35.47	19.24	24.44
LRM30	2	3	49.24	36.86	42.54
LRL20	2	3	36.89	21.76	29.1
LRL30	2	3	42.39	31.94	32.14
LRL30	3	1	20.98	17.84	26.1
LRM20	3	1	26.99	12.9	13.9
LRL20	3	1	26.96	16.13	23.11
LRM30	3	1	32.78	24.65	39.38
LRL20	3	2	26.75	13.72	17.92
LRM30	3	2	23.45	14.96	27.55
LRL30	3	2	30.45	13.6	23.67
LRM20	3	2	24.7	16.02	24.49
LRM30	3	3	30.38	18.55	20.58
LRL20	3	3	51.25	23.43	38.19
LRL30	3	3	55.43	39.52	50.47
LC20	1	1	38.39	33.22	40.66
LC30	1	1	25.36	30.86	31.4
LC20	1	2	29.72	25.02	33.09
LC30	1	2	43.37	46.52	39.82
LC20	1	3	19.66	22.33	29.19
LC30	1	3	43.78	43.68	38.08
LC20	2	1	10.77	10.95	22.12
LC30	2	1	24.05	23.93	39.82
LC20	2	2	22.63	18.89	34.5
LC30	2	2	20.46	18.26	26.07
LC20	2	3	23.41	19.91	36.82
LC30	2	3	39.6	42.26	61.54
LC20	3	1	21.69	24.58	49.69
LC30	3	1	33.85	36.53	63.42
LC20	3	2	27.11	25.83	48.81
LC30	3	2	30.14	32.47	59.45
LC20	3	3	28.59	23.9	39.25
LC30	3	3	26.8	29.87	50.89

**Dataset - "Altura do dossel"**

Ano	Bloco	Tratamento	Pastejo	Altura
1	1	LRLD120	pós	16.38
1	2	LRLD120	pós	15.42
1	1	LRLD120	pré	24.29
1	2	LRLD120	pré	16.16
1	3	LRLD120	pré	24.62
1	3	LRLD120	pós	15.46
2	1	LRLD120	pré	24.16
2	1	LRLD120	pós	15.91
2	2	LRLD120	pós	17.95
2	2	LRLD120	pré	24.58
2	3	LRLD120	pré	37.58
2	3	LRLD120	pós	23.26
3	1	LRLD120	pré	35.80
3	1	LRLD120	pós	24.21
3	2	LRLD120	pré	36.14
3	2	LRLD120	pós	24.22
3	3	LRLD120	pré	26.72
3	3	LRLD120	pós	14.24
1	1	LRLD130	pré	25.94
1	1	LRLD130	pós	14.21
1	2	LRLD130	pré	25.95
1	2	LRLD130	pós	14.20
1	3	LRLD130	pré	20.60
1	3	LRLD130	pós	
2	1	LRLD130	pré	20.98
2	1	LRLD130	pós	21.35
2	2	LRLD130	pré	20.08
2	2	LRLD130	pós	20.33
2	3	LRLD130	pré	29.46
2	3	LRLD130	pós	30.27
3	1	LRLD130	pré	29.78
3	1	LRLD130	pós	29.31

**Dataset - "Dados Climáticos"**

Ano	Mês	Mês	Temp. Máx.	Histórico	Temp. Min.	Histórico	Temperature	Pluviosidade	Histórico	Balanco hídrico
2017	Jan	Jan/17	30.2	30.0	20.3	19.1	25.3	334.5	229.2	224.5
	Feb	Feb/17	32.2	30.4	20.0	19.1	26.1	88.8	178.3	-8.6
	Mar	Mar/17	30.6	30.1	18.4	18.4	24.5	137.0	142.0	8.0
	Apr	Apr/17	28.3	28.5	16.7	15.7	22.5	128.5	66.5	49.9
	May	May/17	25.2	26.1	13.8	12.3	20.5	105.7	55.1	-17.1
	Jun	Jun/17	25.1	25.1	11.8	10.6	18.4	17.8	44.3	-27.6
	Jul	Jul/17	25.3	25.4	9.5	9.8	17.4	0.0	28.3	-49.0
	Aug	Ago/17	26.3	27.4	12.3	11.2	19.3	50.6	30.0	0.0
	Sep	Sep/17	32.1	28.3	14.0	13.6	23.0	46.7	31.9	-36.0
	Oct	Oct/17	30.3	29.2	17.3	15.9	23.8	80.5	109.9	10.5
	Nov	Nov/17	29.6	29.7	16.9	16.9	23.3	235.7	134.6	122.9
	Dec	Dec/17	31.0	29.9	19.4	18.4	25.2	148.6	197.9	-39.0
2018	Jan	Jan/18	30.3	30.0	19.4	19.1	24.8	225.0	229.2	78.9
	Feb	Feb/18	30.2	30.4	18.2	19.1	24.2	71.6	178.3	-11.1
	Mar	Mar/18	32.1	30.1	19.6	18.4	25.8	204.5	142.0	71.2
	Apr	Apr/18	29.6	28.5	15.9	15.7	22.8	35.1	66.5	-21.6
	May	May/18	26.2	26.1	14.8	12.3	20.1	161.6	55.1	-7.0
	Jun	Jun/18	27.5	25.1	12.9	10.6	20.2	8.9	44.3	-37.7
	Jul	Jul/18	25.4	25.4	9.8	9.8	19.4	2.4	28.3	-13.9
	Aug	Ago/18	25.7	27.4	11.3	11.2	18.5	105.7	30.0	-59.2
	Sep	Sep/18	28.7	28.3	13.9	13.6	21.3	54.0	31.9	-33.2
	Oct	Oct/18	28.9	29.2	16.9	15.9	22.9	154.4	109.9	0.0
	Nov	Nov/18	29.3	29.7	17.6	16.9	23.5	241.2	134.6	78.9
	Dec	Dec/18	32.3	29.9	18.5	18.4	25.4	52.2	197.9	44.3
2019	Jan	Jan/19	33.4	30.0	20.4	19.1	26.9	145.8	229.2	4.4
	Feb	Feb/19	30.2	30.4	19.4	19.1	24.8	152.9	178.3	54.9
	Mar	Mar/19	30.5	30.1	19.5	18.4	24.8	73.4	142.0	-8.9
	Apr	Apr/19	29.8	28.5	17.6	15.7	23.7	162.4	66.5	60.7

Dataset - "Intercepção luminosa, Ângulo da folhagem e índice de área foliar\_LAI2000"

Variáveis no pré-pastejo						
Pastejo	Trat	Ano	Bloco	LAI_PreCont	ANG_PreCont	IL_PreCont
Contínuo	LC20	2	1	4.38	44.00	96.84
Contínuo	LC20	2	2	4.64	41.60	97.86
Contínuo	LC20	2	3	4.62	43.80	97.64
Contínuo	LC30	2	1	5.71	42.20	98.98
Contínuo	LC30	2	2	5.56	42.40	98.96
Contínuo	LC30	2	3	5.67	42.20	99.04
pre	LRL20	2	1	4.51	42.67	97.73
pre	LRL20	2	2	4.86	42.33	98.17
pre	LRL20	2	3	5.11	42.50	98.48
pre	LRL30	2	1	6.09	42.00	99.37
pre	LRL30	2	2	5.94	43.67	99.27
pre	LRL30	2	3	5.71	43.00	99.00
pre	LRM20	2	1	5.63	44.00	98.95
pre	LRM20	2	2	5.81	41.50	99.30
pre	LRM20	2	3	.	.	.
pre	LRM30	2	1	4.92	45.00	98.40
pre	LRM30	2	2	6.09	43.00	99.40
pre	LRM30	2	3	5.21	41.50	98.80
pre	LRL20	3	1	3.7	44.0	95.9
pre	LRL20	3	2	3.8	41.8	95.9
pre	LRL20	3	3	3.4	43.5	94.3
pre	LRM20	3	1	4.3	44.0	97.4
pre	LRM20	3	2	3.4	47.3	93.6
pre	LRL30	3	1	6.1	43.0	99.4
pre	LRL30	3	2	4.9	42.0	98.2
pre	LRL30	3	3	5.5	40.0	99.1
pre	LRM30	3	1	4.5	42.5	97.5
pre	LRM30	3	2	4.4	43.0	97.4
pre	LRM30	3	3	5.5	44.0	99.0
contínuo	LC20	3	1	3.6	42.3	94.1
contínuo	LC20	3	2	3.6	43.3	94.1
contínuo	LC20	3	3	3.7	43.2	94.9
contínuo	LC30	3	1	4.3	43.8	97.0
contínuo	LC30	3	2	4.1	44.2	95.6
contínuo	LC30	3	3	4.1	41.7	96.3
pre	LRL20	1	1	4.89	43.00	98.10
pre	LRL20	1	2	5.70	42.33	99.03
pre	LRL20	1	3	5.43	43.00	98.45
pre	LRL30	1	1	6.52	44.00	99.15
pre	LRL30	1	2	5.22	42.50	99.30
pre	LRL30	1	3	5.76	46.00	98.85
pre	LRM20	1	1	5.65	44.00	98.65
pre	LRM20	1	2	5.98	44.50	99.20
pre	LRM20	1	3	5.91	43.00	99.25
pre	LRM30	1	1	8.30	41.00	100.00
pre	LRM30	1	2	8.49	42.00	100.00
pre	LRM30	1	3	6.08	42.00	99.40
contínuo	LC20	1	1	4.29	41.80	96.98
contínuo	LC20	1	2	4.59	42.60	96.98
contínuo	LC20	1	3	3.98	44.40	95.82
contínuo	LC30	1	1	4.93	42.60	98.02
contínuo	LC30	1	2	5.03	45.40	97.78
contínuo	LC30	1	3	5.13	44.60	97.42

Variáveis no pós-pastejo						
Pastejo	Trat	Ano	Bloco	LAI	ANG	IL
pos	LRL20	2	1	2.88	47.50	88.60
pos	LRL20	2	2	2.35	48.00	93.40
pos	LRL20	2	3	2.37	49.25	84.38
pos	LRL30	2	1	3.80	44.33	95.63
pos	LRL30	2	2	2.49	55.33	84.37
pos	LRL30	2	3	2.57	52.67	84.07
pos	LRM20	2	1	2.42	48.00	86.00
pos	LRM20	2	2	2.31	52.00	80.90
pos	LRM20	2	3	.	.	.
pos	LRM30	2	1	1.56	61.00	69.50
pos	LRM30	2	2	2.39	54.00	79.25
pos	LRM30	2	3	2.86	54.00	84.15
pos	LRL20	3	1	2.2	42.0	84.9
pos	LRL20	3	2	2.4	44.0	86.4
pos	LRL20	3	3	1.9	45.0	77.8
pos	LRM20	3	1	1.5	45.5	68.0
pos	LRM20	3	2	1.7	45.0	74.2
pos	LRM20	3	3	.	.	.
pos	LRL30	3	1	3.1	42.0	92.2
pos	LRL30	3	2	3.0	44.0	90.8
pos	LRL30	3	3	2.7	52.0	89.1
pos	LRM30	3	1	1.8	52.0	77.4
pos	LRM30	3	2	1.7	60.0	72.8
pos	LRM30	3	3	2.4	48.0	85.5
pos	LRL20	1	1	2.3	45.0	84.7
pos	LRL20	1	2	2.9	42.5	92.3
pos	LRL20	1	3	2.7	45.7	87.5
pos	LRL30	1	1	3.4	44.0	93.7
pos	LRL30	1	2	2.9	46.3	90.9
pos	LRL30	1	3	3.1	49.0	91.2
pos	LRM20	1	1	2.5	47.0	86.0
pos	LRM20	1	2	2.7	48.7	88.2
pos	LRM20	1	3	1.9	50.7	78.4
pos	LRM30	1	1	2.8	44.5	90.0
pos	LRM30	1	2	2.4	43.5	86.1
pos	LRM30	1	3	2.8	51.0	88.0

Variáveis na altura média do dossel (Rotativos= média do pré e pós-pastejo)						
Pastejo	Trat	Ano	Bloco	LAI_AltMed	ANG_AltMed	IL_AltMed
Contínuo	LC20	2	1	4.38	44.00	96.84
Contínuo	LC20	2	2	4.64	41.60	97.86
Contínuo	LC20	2	3	4.62	43.80	97.64
Contínuo	LC30	2	1	5.71	42.20	98.98
Contínuo	LC30	2	2	5.56	42.40	98.96
Contínuo	LC30	2	3	5.67	42.20	99.04
Rotativo	LRL20	2	1	3.69	45.08	93.17
Rotativo	LRL20	2	2	3.61	45.17	95.78
Rotativo	LRL20	2	3	3.74	45.88	91.43
Rotativo	LRL30	2	1	4.95	43.17	97.50
Rotativo	LRL30	2	2	4.22	49.50	91.82
Rotativo	LRL30	2	3	4.14	47.83	91.53
Rotativo	LRM20	2	1	4.02	46.00	92.48
Rotativo	LRM20	2	2	4.06	46.75	90.10
Rotativo	LRM30	2	1	3.24	53.00	83.95
Rotativo	LRM30	2	2	4.24	48.50	89.33
Rotativo	LRM30	2	3	4.04	47.75	91.48
Rotativo	LRL20	3	1	2.9	43.0	90.4
Rotativo	LRL20	3	2	3.1	42.9	91.1
Rotativo	LRL20	3	3	2.7	44.3	86.1
Rotativo	LRM20	3	1	2.9	44.8	82.7
Rotativo	LRM20	3	2	2.5	46.2	83.9
Rotativo	LRL30	3	1	4.6	42.5	95.8
Rotativo	LRL30	3	2	3.9	43.0	94.5
Rotativo	LRL30	3	3	4.1	46.0	94.1
Rotativo	LRM30	3	1	3.2	47.3	87.4
Rotativo	LRM30	3	2	3.1	51.5	85.1
Rotativo	LRM30	3	3	3.9	46.0	92.2
contínuo	LC20	3	1	3.6	42.3	94.1
contínuo	LC20	3	2	3.6	43.3	94.1
contínuo	LC20	3	3	3.7	43.2	94.9
contínuo	LC30	3	1	4.3	43.8	97.0
contínuo	LC30	3	2	4.1	44.2	95.6
contínuo	LC30	3	3	4.1	41.7	96.3
Rotativo	LRL20	1	1	3.61	44.00	91.40
Rotativo	LRL20	1	2	4.32	42.42	95.65
Rotativo	LRL20	1	3	4.05	44.33	92.99
Rotativo	LRL30	1	1	4.95	44.00	96.41
Rotativo	LRL30	1	2	4.07	44.42	95.10
Rotativo	LRL30	1	3	4.41	47.50	95.03
Rotativo	LRM20	1	1	4.06	45.50	92.33
Rotativo	LRM20	1	2	4.31	46.58	93.70
Rotativo	LRM20	1	3	3.92	46.83	88.81
Rotativo	LRM30	1	1	5.53	42.75	94.98
Rotativo	LRM30	1	2	5.42	42.75	93.05
Rotativo	LRM30	1	3	4.42	46.50	93.70
contínuo	LC20	1	1	4.29	41.80	96.98
contínuo	LC20	1	2	4.59	42.60	96.98
contínuo	LC20	1	3	3.98	44.40	95.82
contínuo	LC30	1	1	4.93	42.60	98.02
contínuo	LC30	1	2	5.03	45.40	97.78
contínuo	LC30	1	3	5.13	44.60	97.42

Data paper - "pH\_Ensaio de produção de gás in vitro"

Informações do modelo	
Conjunto de dados	WORK_PH_MANEJOVSSUPL
Variável dependente	pH
Estrutura de covariância	Componentes de variação
Efeito do assunto	bloco(forrag*suplem)
Método de estimativa	REML
Método de Variação Residual	Parâmetro
Método SE de Efeitos Fixos	Kenward-Roger
Método Graus de Liberdade	Kenward-Roger

Informações de Nível de Classe		
Classe	Níveis	Valores
ano	3	1 2 3
bloco	3	1 2 3
forragem	6	LCDL30 LCDM20 LRDL20 LRDL30 LRDM20 LRDM30
suplemento	5	FmOs Fmilho NO3Se Osoja Zero
inoculo	2	1 2

Dimensões	
Parâmetros de covariância	6
Colunas em X	42
Colunas em Z	263
assuntos	1
Max Obs por Assunto	510

Testes Tipo 3 de Efeitos Fixos				
Efeito	Número DF	Den DF	Valor F	Pr > F
forragem	5	474	0,47	0,8000
suplemento	4	475	108,11	<.0001
forragem*suplemento	20	475	0,53	0,9538

Efeito=Forragem Método=LSD(P<0,05) Conjunto=1

Obs	forragem	suplemento	Estimativa	Erro padrão	Grupo de letras
1	LCDL30		6,5836	0,07321	UMA
2	LCDM20		6,5949	0,07321	UMA
3	LRDL20		6,6063	0,07321	UMA
4	LRDL30		6,5842	0,07321	UMA
5	LRDM20		6,5739	0,07418	UMA
6	LRDM30		6,5910	0,07321	UMA

Efeito=suplemento Método=LSD(P<0,05) Conjunto=2

Obs	forragem	suplemento	Estimativa	Erro padrão	Grupo de letras
7		FmOs	6,4996	0,07307	C
8		Fmilho	6,4755	0,07307	C
9		NO3Se	6,8445	0,07307	UMA
10		Osoja	6,5603	0,07307	B
11		Zero	6,5650	0,07307	B

#### Data paper - "Namoniaca"

Model Information	
Data Set	WORK_NAMONICAL_MANEJOVSSUPL
Dependent Variable	Namoniaca
Covariance Structure	Variance Components
Subject Effect	bloco(forrag*suplem)
Estimation Method	REML
Residual Variance Method	Parameter
Fixed Effects SE Method	Kenward-Roger
Degrees of Freedom Method	Kenward-Roger

Class Level Information		
Class	Levels	Values
ano	3	1 2 3
bloco	3	1 2 3
forragem	6	LCDL30 LCDM20 LRDL20 LRDL30 LRDM20 LRDM30
suplemento	5	FmOs Fmilho NO3+Se Osoja Zero
inoculo	2	1 2

Dimensões	
Covariance Parameters	6
Columns in X	42
Columns in Z	263
Subjects	1
Max Obs per Subject	510

Number of Observations	
Number of Observations Read	510
Number of Observations Used	510
Number of Observations Not Used	0

Type 3 Tests of Fixed Effects				
Effect	Num DF	Den DF	F Value	Pr > F
forragem	5	476	7.78	<.0001
suplemento	4	475	258.98	<.0001
forragem*suplemento	20	475	0.76	0.7583

Effect=forragem Method=LSD(P<0.05) Set=1

Obs	forragem	suplemento	Estimate	Standard Error	Letter Group
1	LCDL30		0.04131	0.001149	B
2	LCDM20		0.04266	0.001149	A
3	LRL20		0.04104	0.001149	B
4	LRL30		0.04009	0.001149	B
5	LRDM20		0.04144	0.001210	AB
6	LRDM30		0.03868	0.001149	C

Effect=suplemento Method=LSD(P<0.05) Set=2

Obs	forragem	suplemento	Estimate	Standard Error	Letter Group
7		FmOs	0.03773	0.001139	B
8		Fmilho	0.03785	0.001139	B
9		NO3+Se	0.05402	0.001139	A
10		Osoja	0.03753	0.001139	B
11		Zero	0.03722	0.001139	B

### Data paper - "Acetato\_AGV"

Model Information	
Data Set	WORK.AGV_MANEIOVSSUPL
Dependent Variable	Acetato
Covariance Structure	Variance Components
Subject Effect	bloco(forrag*suplem)
Estimation Method	REML
Residual Variance Method	Parameter
Fixed Effects SE Method	Kenward-Roger
Degrees of Freedom Method	Kenward-Roger

Class Level Information		
Class	Levels	Values
ano	3	1 2 3
bloco	3	1 2 3
forragem	6	LC20 LC30 LRL20 LRL30 LRM20 LRM30
suplemento	5	Fm FmOs N+S Os zero
inoculo	2	1 2

Dimensions	
Covariance Parameters	6
Columns in X	42
Columns in Z	263
Subjects	1
Max Obs per Subject	509

Number of Observations	
Number of Observations Read	510
Number of Observations Used	509
Number of Observations Not Used	1

Type 3 Tests of Fixed Effects				
Effect	Num DF	Den DF	F Value	Pr > F
forragem	5	476	0.18	0.9706
suplemento	4	476	0.75	0.5595
forragem*suplemento	20	476	0.16	1.0000

Effect=forragem Method=LSD(P<0.05) Set=1

Obs	forragem	suplemento	Estimate	Standard Error	Letter Group
1	LC20		0.9548	0.1487	A
2	LC30		0.9591	0.1488	A
3	LRL20		0.9565	0.1487	A
4	LRL30		0.9454	0.1487	A
5	LRM20		0.9556	0.1492	A
6	LRM30		0.9426	0.1487	A

Effect=suplemento Method=LSD(P<0.05) Set=2

Obs	forragem	suplemento	Estimate	Standard Error	Letter Group
7		Fm	0.9425	0.1487	A
8		FmOs	0.9388	0.1487	A
9		N+S	0.9656	0.1487	A
10		Os	0.9485	0.1487	A
11		zero	0.9663	0.1487	A

Effect=forragem\*suplemento Method=LSD(P<0.05) Set=3

Data paper - "Propionato\_AGV"

Model Information	
Data Set	WORK_AGV_MANEJOVSSUPL
Dependent Variable	Propionato
Covariance Structure	Variance Components
Subject Effect	bloco(forrag*suplem)
Estimation Method	REML
Residual Variance Method	Parameter
Fixed Effects SE Method	Kenward-Roger
Degrees of Freedom Method	Kenward-Roger

Class Level Information		
Class	Levels	Values
ano	3	1 2 3
bloco	3	1 2 3
forragem	6	LC20 LC30 LRL20 LRL30 LRM20 LRM30
suplemento	5	Fm FmOs N+S Os zero
inoculo	2	1 2

Dimensions	
Covariance Parameters	6
Columns in X	42
Columns in Z	263
Subjects	1
Max Obs per Subject	508

Number of Observations	
Number of Observations Read	510
Number of Observations Used	508
Number of Observations Not Used	2

Type 3 Tests of Fixed Effects				
Effect	Num DF	Den DF	F Value	Pr > F
forragem	5	470	0.54	0.7438
suplemento	4	473	245.61	<.0001
forragem*suplemento	20	473	0.35	0.9963

Effect=forragem Method=LSD(P<0.05) Set=1

Obs	forragem	suplemento	Estimate	Standard Error	Letter Group
1	LC20		0.2716	0.03923	A
2	LC30		0.2754	0.03924	A
3	LRL20		0.2775	0.03923	A
4	LRL30		0.2780	0.03924	A
5	LRM20		0.2759	0.03942	A
6	LRM30		0.2692	0.03923	A

Effect=suplemento Method=LSD(P<0.05) Set=2

Obs	forragem	suplemento	Estimate	Standard Error	Letter Group
7		Fm	0.3377	0.03921	A
8		FmOs	0.3289	0.03921	A
9		N+S	0.1620	0.03921	C
10		Os	0.2712	0.03921	B
11		zero	0.2732	0.03921	B

Data paper - "Butirato\_AGV"

Model Information	
Data Set	WORK_AGV_MANEJOVSSUPL
Dependent Variable	Butirato
Covariance Structure	Variance Components
Subject Effect	bloco(forrag*suplem)
Estimation Method	REML
Residual Variance Method	Parameter
Fixed Effects SE Method	Kenward-Roger
Degrees of Freedom Method	Kenward-Roger

Class Level Information		
Class	Levels	Values
ano	3	1 2 3
bloco	3	1 2 3
forragem	6	LC20 LC30 LRL20 LRL30 LRM20 LRM30
suplemento	5	Fm FmOs N+S Os zero
inoculo	2	1 2

Dimensions	
Covariance Parameters	6
Columns in X	42
Columns in Z	263
Subjects	1
Max Obs per Subject	507

Number of Observations	
Number of Observations Read	510
Number of Observations Used	507
Number of Observations Not Used	3

  

Type 3 Tests of Fixed Effects				
Effect	Num DF	Den DF	F Value	Pr > F
forragem	5	462	0.49	0.7851
suplemento	4	472	420.41	<.0001
forragem*suplemento	20	472	0.25	0.9997

Obs	forragem	suplemento	Estimate	Standard Error	Letter Group
1	LC20		0.1224	0.01413	A
2	LC30		0.1226	0.01413	A
3	LRL20		0.1222	0.01413	A
4	LRL30		0.1203	0.01414	A
5	LRM20		0.1194	0.01429	A
6	LRM30		0.1181	0.01414	A

Effect=suplemento Method=LSD(P<0.05) Set=2

Obs	forragem	suplemento	Estimate	Standard Error	Letter Group
7		Fm	0.1564	0.01411	A
8		FmOs	0.1557	0.01411	A
9		N+S	0.03530	0.01411	C
10		Os	0.1275	0.01411	B
11		zero	0.1293	0.01412	B

#### Dataset - "Ensaio de produção de Gás \_Degradabilidade da fibra \_Metano"

<https://docs.google.com/spreadsheets/d/1wRqBvuiHVR15OISL5u5F08gDJJM-IPPR/edit?usp=sharing&oid=111318973907110418056&trpof=true&sd=true>

#### Dataset - "Ácidos Graxos de cadeia Curta"

[https://docs.google.com/spreadsheets/d/1s3NOUagaEX4iygRnbpTjPrDs01\\_Zs/edit#gid=948041572](https://docs.google.com/spreadsheets/d/1s3NOUagaEX4iygRnbpTjPrDs01_Zs/edit#gid=948041572)

#### Dataset - "Raizes\_Carbono\_Nitrogenio"

<https://mail.google.com/mail/u/0/#search/pccsantos%40usp.br?projectora=1>

#### Dataset - "Ponto inclinado\_estrutura do dossel"

Planilha de ponto inclinado\_ano 2018

<https://docs.google.com/spreadsheets/d/1twZSrmSwbCC-0BldAeReAgxdwfejNmt/edit#gid=1619903822>

Planilha de ponto inclinado\_ano 2019

[https://docs.google.com/spreadsheets/d/1JW\\_KyTgWMM-1z2xRVVbQv58t4ONu\\_1/edit#gid=1189948720](https://docs.google.com/spreadsheets/d/1JW_KyTgWMM-1z2xRVVbQv58t4ONu_1/edit#gid=1189948720)

#### Planned research output details

Title	Type	Anticipated release date	Initial access level	Intended repository(ies)	Anticipated file size	License	Metadata standard(s)	May contain sensitive data?	May contain PII?
Fotossíntese foliar e outras variáveis fisiológicas ...	Dataset	Unspecified	Restricted	None specified	2 MB	Creative Commons Attribution Non Commercial Share Alike 4.0 International	None specified	Yes	Yes
Fotossíntese do dossel forrageiro de capim Mulato ...	Dataset	Unspecified	Restricted	None specified	500 MB	Creative Commons Attribution Non Commercial Share Alike 4.0 International	None specified	Yes	Yes
Digestibilidade in vitro_Tilly & Terry	Dataset	Unspecified	Restricted	None specified	200 MB	Creative Commons Attribution Non Commercial Share Alike 4.0 International	None specified	No	No
Fracionamento de CHO e Proteína	Dataset	Unspecified	Restricted	None specified	200 MB	Creative Commons Attribution Non Commercial Share Alike 4.0 International	None specified	No	No
Composição químico-bromatológica	Dataset	Unspecified	Restricted	None specified	200 MB	Creative Commons Attribution Non Commercial Share Alike 4.0 International	None specified	No	No
Acúmulo, Massa de forragem e dos componentes morfo ...	Dataset	Unspecified	Restricted	None specified	500 MB	Creative Commons Attribution Non Commercial Share Alike 4.0 International	None specified	No	No
Altura do dossel	Dataset	Unspecified	Restricted	None specified	100 MB	Creative Commons Attribution Non Commercial Share Alike 4.0 International	None specified	No	No
Dados Climáticos	Dataset	Unspecified	Restricted	None specified	902 MB	Creative Commons Attribution Non Commercial Share Alike 4.0 International	None specified	No	No
Intercaptação luminosa, Ângulo da folhagem e índice ...	Dataset	Unspecified	Restricted	None specified	200 MB	Creative Commons Attribution Non Commercial Share Alike 4.0 International	None specified	No	No
pH_Ensaio de produção de gás in vitro	Data paper	Unspecified	Restricted	None specified		Creative Commons Attribution Non Commercial Share Alike 4.0 International	None specified	No	No
Nanomiaical	Data paper	Unspecified	Restricted	None specified		Creative Commons Attribution Non Commercial Share Alike 4.0 International	None specified	No	No
Acetato_AGV	Data paper	Unspecified	Restricted	None specified		Creative Commons Attribution Non Commercial Share Alike 4.0 International	None specified	No	No
Propionato_AGV	Data paper	Unspecified	Restricted	None specified		Creative Commons Attribution Non Commercial Share Alike 4.0 International	None specified	No	No
Butirato_AGV	Data paper	Unspecified	Restricted	None specified		Creative Commons Attribution Non Commercial Share Alike 4.0 International	None specified	No	No
Ensaio de produção de Gás _Degradabilidade da fib ...	Dataset	Unspecified	Restricted	None specified		Creative Commons Attribution Non Commercial Share Alike 4.0 International	None specified	Yes	Yes
Ácidos Graxos de cadeia Curta	Dataset	Unspecified	Restricted	None specified		Creative Commons Attribution Non Commercial Share Alike 4.0 International	None specified	Yes	Yes
Raizes_Carbono_Nitrogenio	Dataset	Unspecified	Restricted	None specified		Creative Commons Attribution Non Commercial Share Alike 4.0 International	None specified	No	No
Ponto inclinado_estrutura do dossel	Dataset	Unspecified	Restricted	None specified		Creative Commons Attribution Non Commercial Share Alike 4.0 International	None specified	Yes	Yes