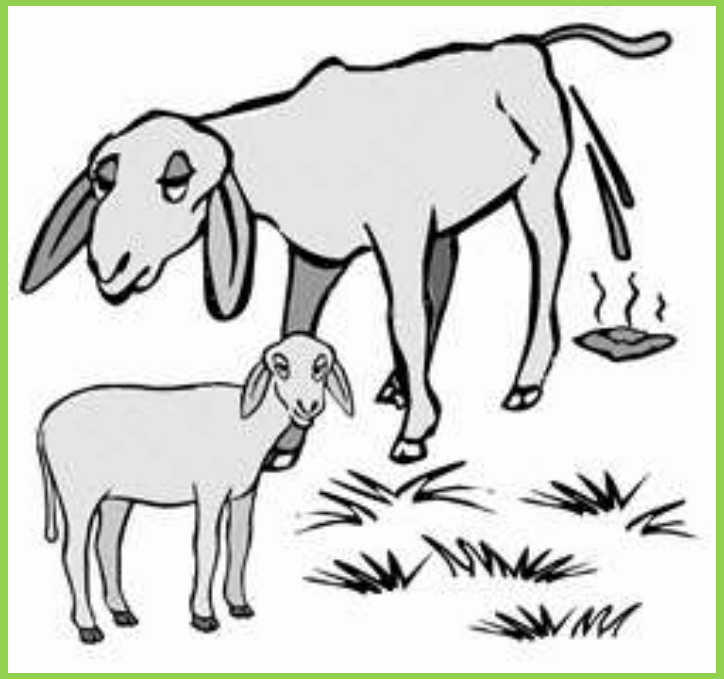

IX CONGRESO INTERNACIONAL DE
MEDICINA VETERINARIA Y ZOOTECNIA
en especies menores y mayores.
LATACUNGA 2, 3 Y 4 DE OCTUBRE 2019
UNIVERSIDAD TÉCNICA DE COTOPAXI
EDUCACIÓN CONTINUA
Medicina Veterinaria
AGROCALIDAD
CIDE

Coccidiosis en ovinos, su impacto en la producción y alternativas de control

Integrante del Cuerpo Académico de Producción Animal CA-UAZ-107.
Unidad Académica de Medicina Veterinaria y Zootecnia de la Universidad Autónoma de Zacatecas.
16 años impartiendo clases en la licenciatura de Medicina Veterinaria y Zootecnia, como Medicina y Producción de Ovinos y Caprinos, Parasitología Veterinaria y Nutrición.
Líneas de Investigación: Parasitosis de los Animales Domésticos (especialmente rumiantes) y Nutrición de Pequeños Rumiantes. Con varios trabajos, ponencias y conferencias en congresos Nacionales e Internacionales como Ecuador, Colombia, Cuba y México.

OBJETIVO DE ESTUDIO

- Informar a los interesados en el tema sobre la problemática, situación, impacto económico, control y prevención de la Coccidiosis Ovina.



JUSTIFICACIÓN

- La globalización de los mercados
- Aumento de productividad
- Resistencia a los medicamentos
- Riesgos potenciales ambiente y consumidores
- Administración indiscriminada de medicamentos

- Crecimiento de la población mundial
- Uso indiscriminado de los recursos
- Número de Cabezas de ganado *vs* Productividad
- Eficiencia productiva
- Producción sustentable

- Resistencia de Eimerias a anticoccidianos reportada en aves
- Resistencia de Eimerias en ovinos
- Identificar opciones antiparasitarias disponibles en recursos locales
- Investigaciones con extractos de plantas en aves y en ovinos


Ooquiste no esporulado (inmaduro o no infeccioso)
Ooquiste esporulado (maduro o infeccioso)
Ooquiste ingerido en Intestino
Desenquistación
Ooquiste libera esporoquistes
Esporoquistes liberan esporozoitos
Esporozoitos invaden enterocitos
Trofozoito
Esquizonte
Merozoitos liberados de Esquizonte
Ciclo de Reinfección
Gametos masculinos y femeninos
Desarrillo del ooquiste
Ooquiste en heces
Esporulación ocurre fuera del hospedero. Requiere varios días y oxígeno
Ciclo Vital de Eimeria

Parasitol Res (2017) 116:1237–1245
DOI 10.1007/s00436-017-5400-7

ORIGINAL PAPER

Treatment against coccidiosis in Norwegian lambs and potential risk factors for development of anticoccidial resistance—a questionnaire-based study

Ane Odden[1] · Heidi L. Enemark[2] · Lucy J. Robertson[3] · Antonio Ruiz[4] · Lisbeth Hektoen[5,6] · Snorre Stuen[1]

Received: 16 January 2017 / Accepted: 3 February 2017 / Published online: 11 February 2017

Abstract The objectives of this study were to investigate the use of anticoccidials in Norwegian sheep flocks and identify farms with management procedures likely to select for drug resistance. Data were obtained by a questionnaire sent to all members of the Norwegian Sheep Recording System in October 2015. The data set consisted of 1215 answers, corresponding to 8.5% of Norwegian sheep flocks. Anticoccidials between the apparently reduced anticoccidial efficacy and management conditions, such as the size of the farms, were found. From the farmers' perspective, metaphylactic treatment was used in 88.5% of treated flocks, of which approximately one third had no history of clinical coccidiosis. Even though farmers seem aware of the importance of good drenching routines based on reliable estimates of weights and calibration of

Iranian J Parasitol: Vol. 8, No.2, Apr-Jun 2013, pp.234-241

Tehran University of Medical Sciences Publication
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http:// isp.tums.ac.ir

Original Article

Evaluating the Resistance of *Eimeria* Spp. Field Isolates to Anticoccidial Drugs Using Three Different Indices

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Diclazuril, amprolium+ethopabate and salinomycin,

Rev. Bras. Parasitol. Vet., Jaboticabal, v. 21, n. 1, p. 16-21, jan.-mar. 2012
ISSN 0103-846X (impresso) / ISSN 1984-2961 (eletrônico)

Use of coccidiostat in mineral salt and study on ovine eimeriosis

Uso de coccidiostático no sal mineral e estudo da eimeriose ovina

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Accepted September 27, 2011

Abstract

Coccidiosis is a serious obstacle to sheep production, which is becoming a limiting factor, especially with regard to lamb production. However, there are few studies on this parasite in the State of Rio Grande do Norte. The aim of this study was to evaluate the action of decoquinate, added to mineral salt, for controlling *Eimeria* infection in lambs, and to identify which species are infecting sheep in the eastern region of the state. This study was carried out from August 2009 to January 2010, and used 76 animals. These were divided into two treatment groups: one with common mineral salt, and the other with mineral salt enriched with 6% micronized decoquinate. Fecal samples and body weight measurements were taken every 14 days for parasitological diagnosis, weight gain follow-up and quantitative analysis. The study showed that there was a significant difference in OPG only at the 7th collection, but no significant difference in weight gain. The *Eimeria* species found were *E. ahsata*, *E. crandallis*, *E. granulosa*, *E. intrincata*, *E. ovina*, *E. faurei*, *E. ovinoidalis*, *E. pallida* and *E. parva*. It was concluded that addition of decoquinate to mineral salt gave rise to lower

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OPEN

Field trial of medicinal plant, *Bidens pilosa*, against eimeriosis in broilers

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Accepted: 31 March 2016
Published: 21 April 2016

Eimeriosis is a severe protozoan disease in poultry. Because of increasing concern about drug residue and drug resistance with the use of anticoccidial drugs, natural products are emerging as an alternative and complementary approach to control avian eimeriosis. Our previous publication showed that feed supplemented with *B. pilosa* (BP) was effective at combating chicken eimeriosis in experimental settings. However, its efficacy against chicken eimeriosis under field conditions is not known. Here, we investigated the efficacy of BP against eimeriosis on an organic chicken farm. We found that feed supplemented with BP, at the dose of 0.025% of feed or more, significantly reduced *Eimeria* infection. This treatment increased body weight gain and reduced feed conversion ratio, leading to superior growth performance. It lowered morbidity/mortality rate, decreased oocysts per gram of feces and gut pathology and augmented the anticoccidial index. Collectively, these data demonstrated the potential of BP to control chicken eimeriosis on chicken farms. BP can, therefore, be used as an effective means to control eimeriosis.

Parasitol Res (2014) 113:3547–3556
DOI 10.1007/s00436-014-4101-8

REVIEW

Towards identifying novel anti-*Eimeria* agents: trace elements, vitamins, and plant-based natural products

Frank Wunderlich · Saleh Al-Quraishy · Holger Steinbrenner · Helmut Sies · Mohamed A. Dkhil

Received: 2 July 2014 / Accepted: 25 August 2014 / Published online: 4 September 2014

Abstract Eimeriosis, a widespread infectious disease of live- in the first-pass organ liver. Currently, it appears to be prom-

Dantán-González *et al. BMC Veterinary Research* (2015) 11:278
DOI 10.1186/s12917-015-0589-0

BMC Veterinary Research

RESEARCH ARTICLE Open Access

Impact of *Meyerozyma guilliermondii* isolated from chickens against *Eimeria* sp. protozoan, an *in vitro* analysis

Edgar Dantán-González[1*], Rosa Estela Quiroz-Castañeda[2], Mayra Cobaxin-Cárdenas[1], Jorge Valle-Hernández[1], Yitzel Gama-Martínez[3], José Raunel Tinoco-Valencia[4], Leobardo Serrano-Carreón[4] and Laura Ortiz-Hernández[1]

Abstract

Background: Avian coccidiosis is a disease caused worldwide by several species of parasite *Eimeria* that causes

Small Ruminant Research 135 (2016) 27–35

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journal homepage: www.elsevier.com/locate/smallrumres

Effects of *Curcuma longa* dietary inclusion against *Eimeria* spp. in naturally-infected lambs

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Eimeria

ABSTRACT

Ovine coccidiosis caused by *Eimeria* spp. can negatively impact health and overall productive performance in sheep with mortalities up to 20% in lambs. It is characterized by high production of pro-inflammatory cytokines and oxidative stress that can damage intestinal tissue. Currently, only drugs are used for the treatment of ovine coccidiosis. Nevertheless, anticoccidial resistance and the concern of drug residues in edible tissues and milk have prompted the evaluation of alternatives to prevent and control this disease. Based on preliminary findings, the use of *Curcuma longa* dietary supplementation was evaluated in this trial. Twenty crossbred lambs naturally infected with *Eimeria* spp., aged 28-days-old with an average weight of 12 kg, were divided in five groups. Three groups were treated orally for 14 days with 50 mg/kg, 100 mg/kg, or 200 mg/kg of *C. longa*. A placebo-treated group and untreated controls were included in this

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http://dx.doi.org/10.22319/rmcp.v8i1.4305

Potential economic impact assessment for cattle parasites in Mexico. Review

Evaluación del impacto económico potencial de los parásitos del ganado bovino en México. Revisión

Roger Iván Rodríguez-Vivas[a*], Laerte Grisi[b†], Adalberto Angel Pérez de León[c], Humberto Silva Villela[d], Juan Felipe de Jesús Torres-Acosta[a], Hugo Fragoso Sánchez[e], Dora Romero Salas[f], Rodrigo Rosario Cruz[g], Fabián Saldierna[h], Dionisio García Carrasco[h]

ABSTRACT

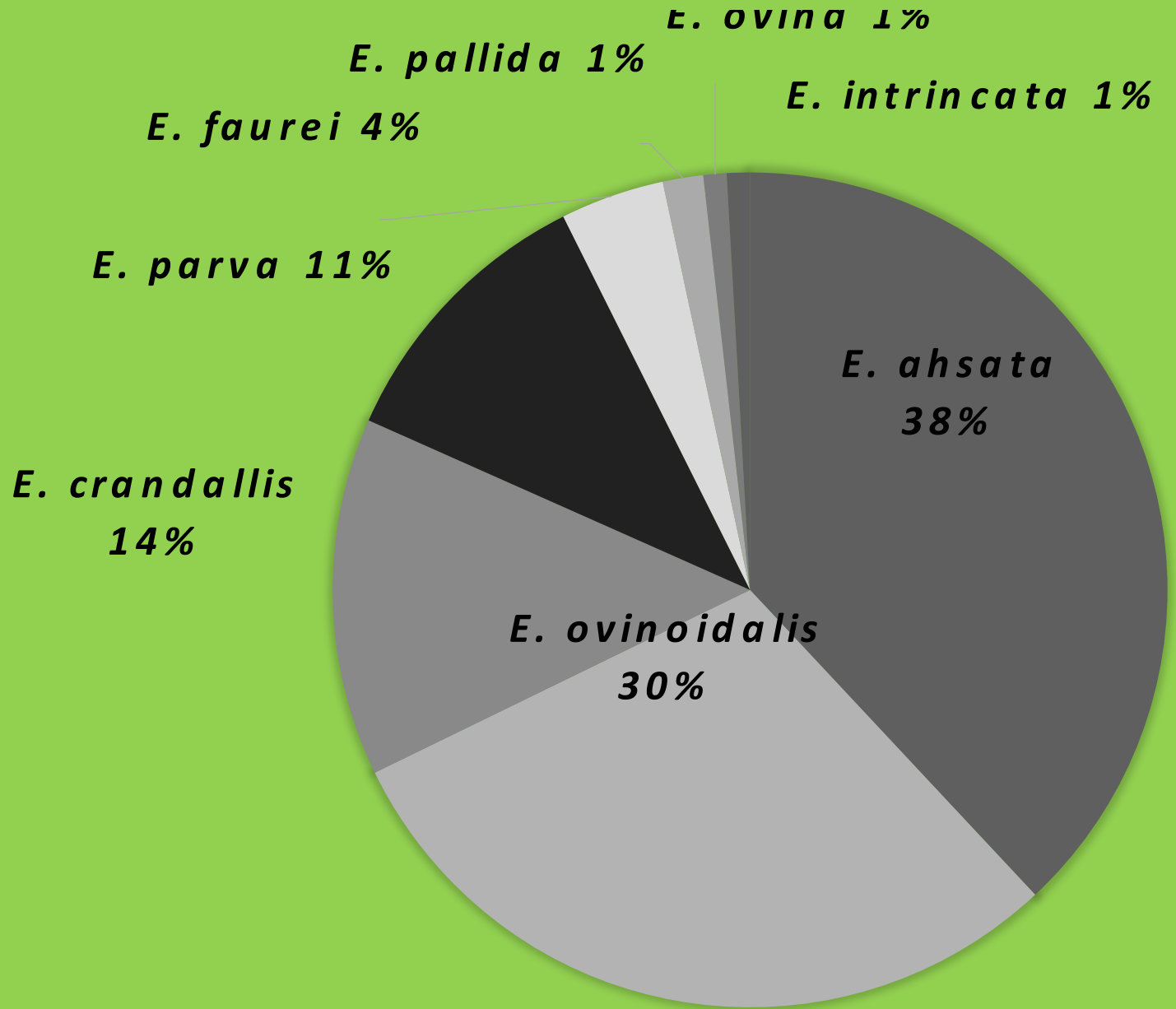
Here, economic losses caused by cattle parasites in Mexico were estimated on an annual basis. The main factors taken into consideration for this assessment included the total number of animals at risk, potential detrimental effects of parasitism on milk production or weight gain, and records of condemnation on livestock byproducts. Estimates in US dollars (US$) were based on reported yield losses in untreated animals. These estimates reflect the major effects on cattle productivity of six parasites, or parasite group. The potential economic impact (US$ millions) was: gastrointestinal nematodes US$ 445.10; coccidia (*Eimeria* spp.) US$ 23.78; liver fluke (*Fasciola hepatica*) US$ 130.91; cattle tick (*Rhipicephalus microplus*) US$ 573.61; horn fly (*Haematobia irritans*) US$ 231.67; and stable fly (*Stomoxys calcitrans*) US$ 6.79. Overall, the yearly economic loss due to the six major parasites of cattle in Mexico was estimated to be US$ 1.41 billion. Considering that the national cattle herd registered in 2013 included 32.40 million head, the estimated yearly loss per head was US$ 43.57. The limitations of some of the baseline studies used to develop these estimates, particularly when extrapolated from local situations to a national scale, are acknowledged. However, the general picture obtained from the present effort demonstrates the magnitude and importance of cattle parasitism in Mexico and the challenges to maximize profitability by the livestock industry without adapting sustainable and integrated parasite control strategies.

KEY WORDS: Potential economic impact, Bovines, Endoparasites, Ectoparasites, México.

- Larrea tridentata conocida como “gobernadora” es una fuente invaluable de moléculas biológicamente activas
- Potente antioxidante: el ácido nordihidroguaiarético (ANDG) que posee actividad fungicida y antiviral

- Fenoles, saponinas, terpenoides y ésteres de ceras 20 a 35%
- Extractos etanólicos y clorofórmicos y el ANDG muestran una marcada inhbición en el crecimiento de Entamoeba hystolitica

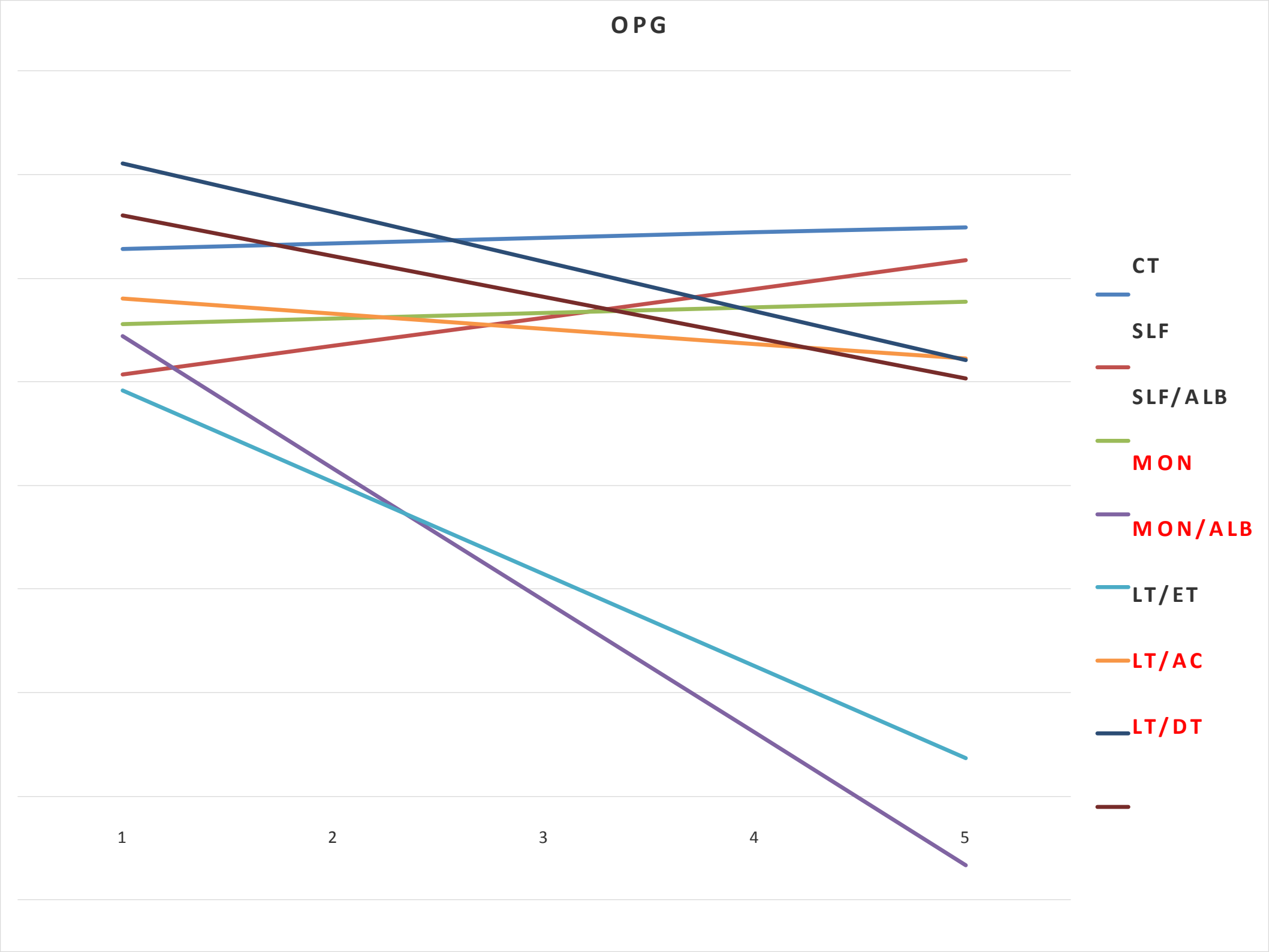
Frecuencia de eimerias de ovinos en el Altiplano Zacatecano (77.2% positivos)

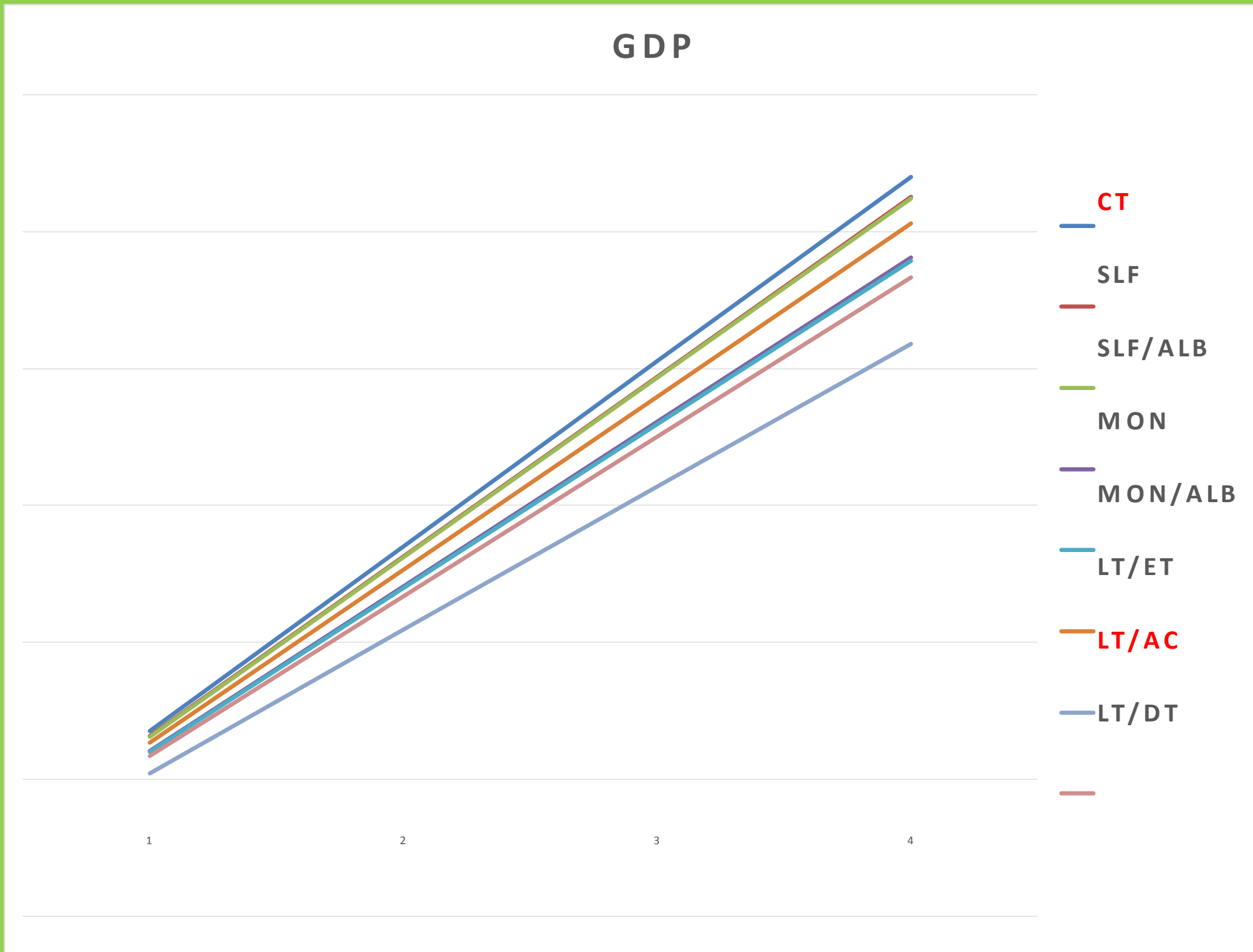


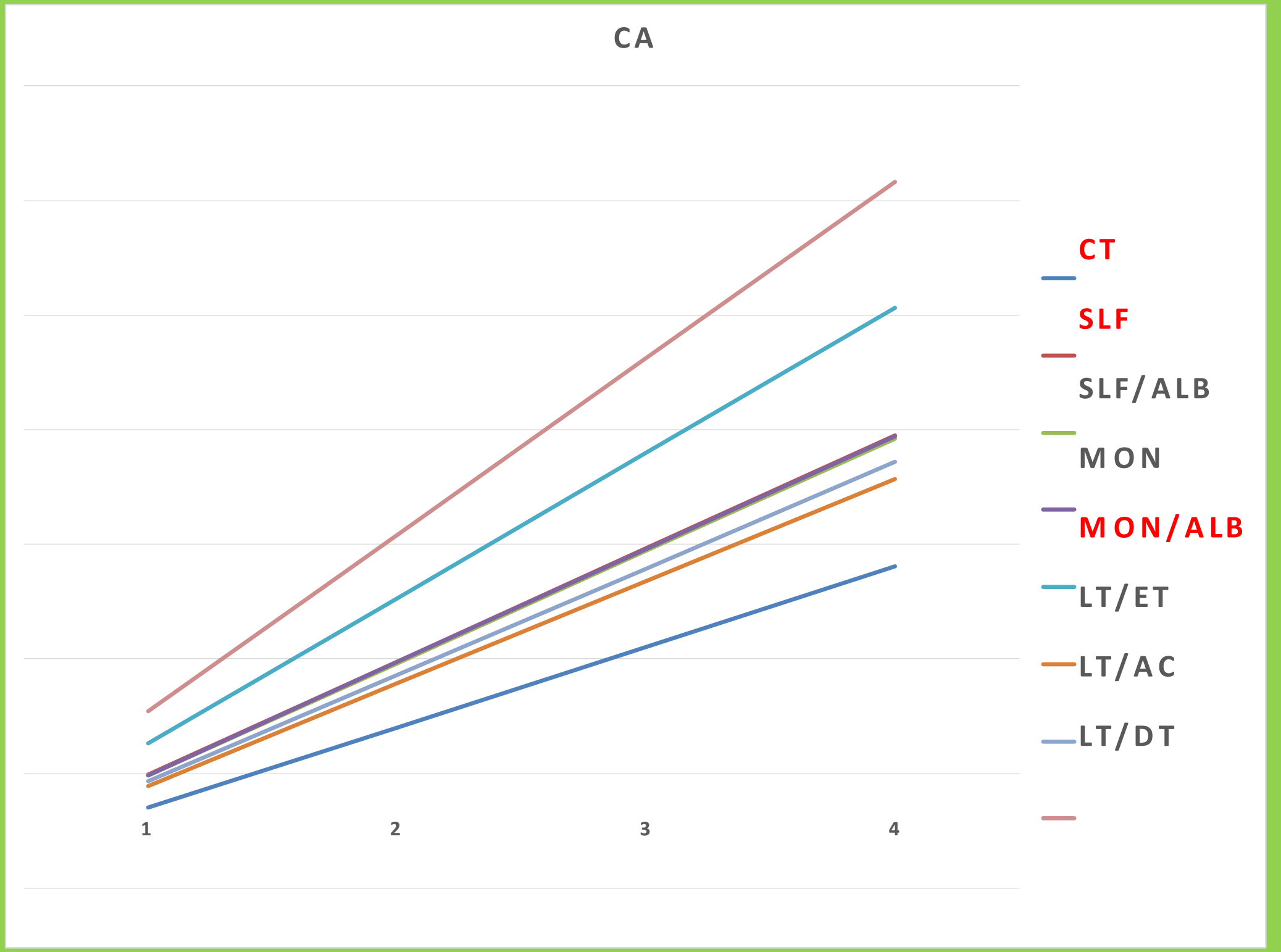
Ooquistes de Eimeria spp en ovinos pre y postdestete del centro de Zacatecas

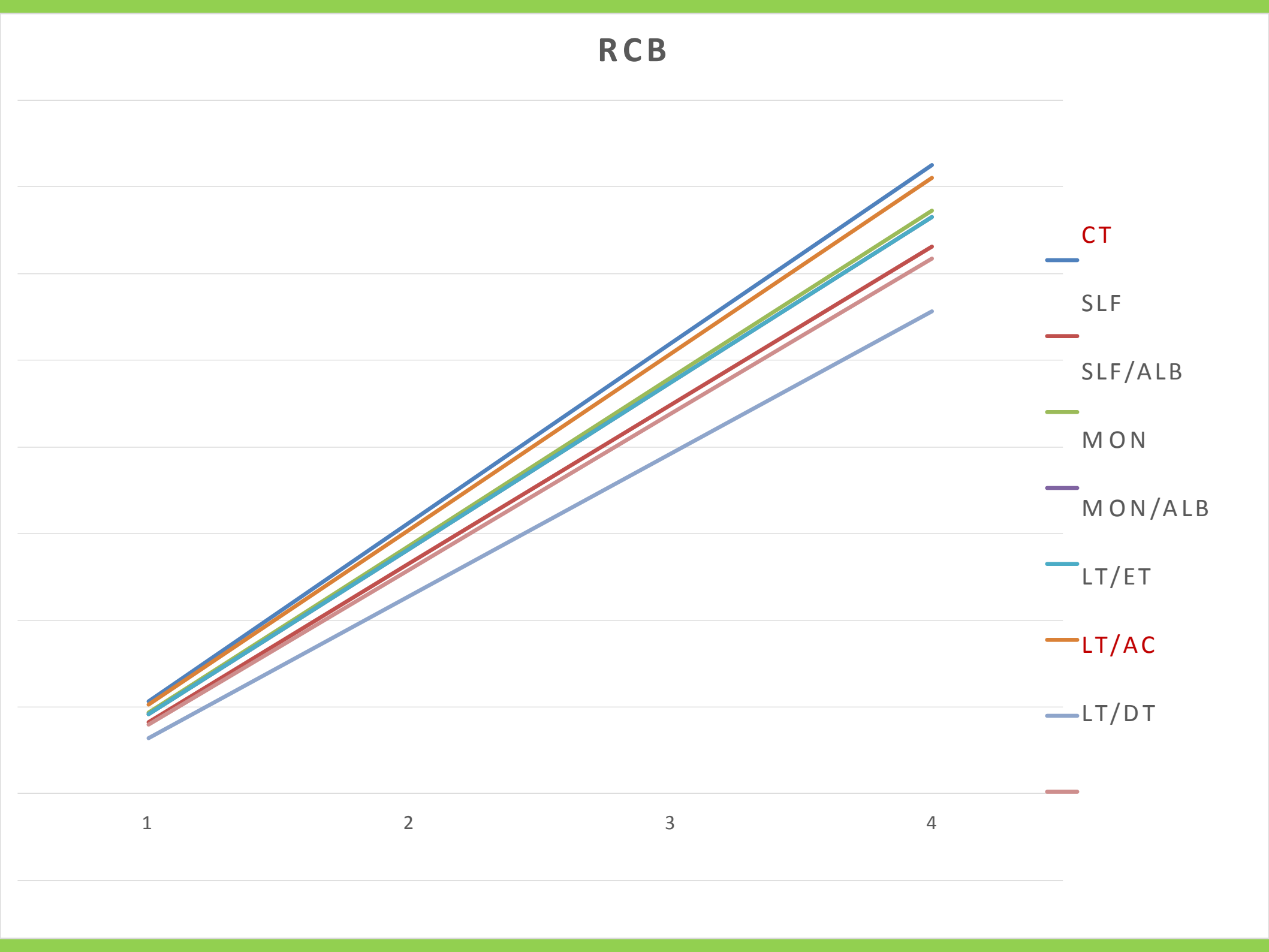
- **EVALUACIÓN DE LAS PÉRDIDAS ECONÓMICAS POR EFECTO DE *Eimeria* spp EN CORDEROS POSDESTETE TRATADOS CON *Larrea tridentata***

Variable	CT	SLF	SLF/ALB	MN	MN/ALB	LT/ET	LT/AC	LT/DT
P. I.	20.43	18.63	19.96	21.6	20.46	21.46	21.16	20.76
P. F	36.2	35.86	29.8	36.1	35.33	37.66	34.5	37.033
GDP	0.282	0.308	0.176	0.259	0.266	0.289	0.238	0.291
HT.I	38	42	32	35	49	31	35	27
HT.F	37	44	43	34	34	32	38	41
PTP.I	7.5	8.2	7.7	8.6	8.4	7.4	8	7.8
PTP.F	9.1	9.2	9.6	9.4	9.2	9.2	9.2	8.7
OPG.I	8200	2500	4700	11080	930	1150	5300	4600
OPG.F	5450	1150	800	0	0	150	100	300


OPG
1
2
3
4
5
CT
SLF
SLF/ALB
MON
MON/ALB
LT/ET
LT/AC
LT/DT


GDP
1
2
3
4
CT
SLF
SLF/ALB
MON
MON/ALB
LT/ET
LT/AC
LT/DT


CA
1
2
3
4
CT
SLF
SLF/ALB
MON
MON/ALB
LT/ET
LT/AC
LT/DT


RCB
CT
SLF
SLF/ALB
MON
MON/ALB
LT/ET
LT/AC
LT/DT
1
2
3
4

CONCLUSIONES

- Investigaciones futuras
- Corroborar la efectividad de MSP
- Separar e identificar MSP
- Utilizar productos regionales
- Producción Holística y Sustentable

- Eficiencia productiva
- Asociaciones patógenas
- Planeación productiva
- Manejo sanitario, nutricional y reproductivo
- Concientización a productores
- Actitud Empresarial

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Gracias

¿preguntas?