Release Notes 2021-10-24 : This is one in a series of works released as notes/draft form as it achieves the intended purpose of documenting a result while not being exactly publication quality. This demonstrates some successes and problems tracking dog diets and health outcomes similar to the prior ones mostly on heartworm and vitamin K. This paper finally gets to an older dog and hopefully some issues common in old age. Even though the main text is short, a few redundancies were left in intentionally where the same point or definition may be independently relevant in multiple locations. **For information only, not to be used for any particular purpose. See all disclaimers. Caveat Emptor**

Supplement History for a Senior Hypothyroid Chihuahua

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This work describes the history of an older chihuahua, Spicey, over the course of several years at the end of her life as procedures and software were developed for generating useful data from diet history and observable outcomes. It illustrates a cessation of a recurring problem with bloody diarhea by adding well formulated nutrient mixes to her diet. The nutrients included amino acids, metals, and B-vitamins combined in such a way as to be mutually compatible in any given mixture and easily absorbed. A partial solution to a hypothyroid condition was implemented with a processed thyroid product as the veterinarian and dog owner were reluctant to pursue thyroid replacement hormone. Dessicated thyroid, containing natural amounts of thyroxine, may have been beneficial but was difficult to locate. While most of her overt symptoms improved, she deteriorated rapidly under unfortunate circumstances. It remains unclear if the thyroid insufficiency, some other disease progression, or specific unhealthy substances contributed to her deterioration. This history illustrates some real-world problems inherent in real-world data as well as some possible success of a diet with broader implications for general purpose use among older dogs.

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1. INTRODUCTION

A lot of literature exists on nutrition for pets and humans but not a lot of good ways to test or evaluate it. Commercial products are reputed to range from excellent to toxic and sometimes concerns come up about specific issues such as DCM in dogs linked to particular products [11] or the older issue with taurine in cat foods [14]. One particular concern is nutrition for the elderly and this is possibly even more important now with the age distribution of covid-19 suggesting age correlated conditions may influence disease severity[27]. An easier way to collect real world evidence may help sort out some of these issues.

The present paper illustrates the use of a simple software tool,MUQED [25] to record the diet of one chihuahua along with a group of other dogs receiving related diets. It documents the ambiguous but encouraging results of a diet that may address general aging issues. The chihuahua discussed here is Spicey (short for "Spicey Noodle" also called Snooter). She was one of a group of dogs getting regular "snacks" composed of dog compatible human food and regulated amounts of vitamins but was one of the few dogs here who was deprived of the snacks for months at a time. She also had a hypothyroid condition which was likely a significant health factor once the GI disturbances stopped after the new snack diet was more consistently consumed. Her history includes the use of a thyroid glandular product in the absence of owner and vet interest in T4 replacement. She improved somewhat with this diet and thyroid product but likely would have benefited from earlier T4 replacement.

While not a central focus of this work, thyroid and food are a common topic on the internet with ingredients such as soy generating some controversy [6]. Idiopathic thyroid atrophy may relate to a general age related atrophy and be an interesting topic for the elderly diet under development.

Unfortunately, her diet in the one week interval from good health to death remains unknown. This narrative then also illustrates some real problems with real world data that need to be considered explicitly.

2. METHODS

Observations about Spicey's condition and vet interventions were noted in the context of her diet, recorded after each feeding in MUQED format [26]. This record omits regular meals composed of commercial products such as kibbles and canned foods as well as some vet specified homemade meals which were generally similar to food components of the snacks described here. Gaps exist where I went on vacation or Spicey was away although during these times she largely just ate commercial dog food products and intermittent owner selected natural dog medicines. Prescribed medicines were not always recorded when given. Vitamins were mixed with foods sold for human consumption into products called "snacks" . While a completely detailed recipe has not been published, many relevant details have been described previously [24] [29] or references therein, with some pictures used to illustrate the MUQED description [26]. Spicey received a "snack" similar to a group of dogs with diverse attributes. Outcomes were recorded in human readable "NOTES" which in retrospect tended to be too sparse but were useful nonetheless. While mostly in plain English, code words were included that had specific meanings that would not be familiar to others. "Dancing" was used to describe her animated actions prior to eating her evening meal. "Steps" referred to a small set of stair steps from the backyard to deck which may be a challenge for older small dogs making performance diagnostic of some maladies. MUQED can accommodate more outcome observations in machine readable format but unfortunately this feature was not used often enough.

Ultimately, most known vitamins are included in some snacks except for vitamin E (with mixed tocopherols being very common in commercial foods [20] [7]) , calcium (probably sufficient in the foods with absorption aids), and iron (beef and spinach with absorption aids are apparently ok although Spicey and other dogs have had low RBC/Hb values). The core components include the amino acids and less trendy vitamins. Overall, a snack consists of fixed components such as foods (raw ground beef, boiled chicken, Eggland's Best hard-boiled eggs, shrimp, grated carrots, spinach, salmon, tuna, etc) and multifunctional digestive aids (potassium chloride, citric acid, lecithin) , rotating amino acids (most essential amino acids plus arginine and tyrosine), rotating SMVT substrates now including iodine, rotating A,D, K, intermittent doses of most other vitamins such as the B's, and rotating metals (copper, zinc, magnesium, manganese, and most recently selenium) . While many details are omitted, generally the beef and chicken details were noted as they vary greatly in composition.

3. CASE DESCRIPTION

Spicey is a chihuahua of unknown age but estimated by the owner to be about 20 years old at the time of her death making her about 15 years old when the diet was first recorded. Her weight fluctuated around 3kg. Notable afflictions

include variable hair loss including a "rat-tail", neck skin injury possibly an insect bite, enlarged abdomen, recurring bloody diarrhea, lameness, cough , enlarged tongue, and removed teeth.

Her chronology notes are listed in Fig. I with a longer version in Appendix. A. Her diet and supplement consumption is documented in Fig. 1 with monthly statistics summarized in the much longer tables in Appendix. B. Before any supplement usage, her head was mostly bald with limited fur on legs though much of that filled in earlier than the current focus of this work without good notes taken on the details. Once her head hair filled in, it remained filled even as her lower parts lost hair.

The graph in Fig. 1 shows the number of days in each month when Spicey got one or more snacks. It is notable for periods of essentially no snacks in early 2018 and 2019. Prior to 2020, even when snacks were given, they may have been "scaled down" versions of those fed to other dogs. Unfortunately the chronology in Appendix. A is a bit too terse to capture all of the ways in which the diet related to her conditions. However, her biggest overt symptom of concern was recurring blood diarrhea and lack of interest in food. At the time, there seemed to be a correlation between the snacks and improved health. The last noted instance of bloody diarrhea was 2020-02-10 as snacks became more consistent.

Generally Spicey was healthy from about March 2020 to December 2020. In December, she began picking up her paws and they felt cold. On December 21, 2020, an osteopath vet diagnosed "a virus" and prescribed a special meal, silver drops, vibactra, and lachesis. By December 29, observations included "rat-tail" [37] shown in Fig. 3, a bent under paw, and expanding abdomen. Generally these seemed consistent with the prior hear-say diagnosis of hypothyroidism. Small doses of the Swanson Thyroid Glandular 200mg ("thgland") [32] product were begun on Juanuary 10, 2021 ramping up to 100mg three times a day. Thyroid relevant supplements including tyrosine and iodine were increased as shown in Fig. 2.

A probably unrelated issue was a suspected insect bite on her neck that was treated with a homemade oil which, while dramatic initially, quickly became insignificant. Her neck was noted as "thick" at the time. From March 25,2021 to October 01, she was again generally healthy able to walk and trot from time to time while dancing around dinner time. Fluctuations appeared to relate to histidine and later possibly choice of chicken between boneless skinless breasts or the thighs that she seemed to prefer. Her last few meals were made with chicken thighs instead of breasts. On October 01, she was left with a temporary care giver, a friend of the owner, and returned October 7 cold to the touch, slow, and intermittently crying. She ate the snack well that evening but was only able to cry at the bottom of steps(as described elsewhere, "steps" here refer to a set of about 6 steps from the backyard up to the deck that is commonly used here to assess the condition of small dogs). By the next morning, she seemed normal and ok on steps again with normal surface temperature after having been in open air for a while. Returning to the same osteopath vet, despite the rat-tail and blood test with T4 below limit of report, Fig. II , the vet and owner were reluctant to consider thyroid replacement and instead prescribed Nux Vomica 30C, amoxidrop, meloxidyl, furosemide, and silver drops. I did not enter all given doses into MUQED format. She was put to sleep two days later.

Date	Observations
2017-12-20	to vet, cries when picked up, possible herniated disck given clindamycin and anti-inflammatory shot
2018-06-05	vet, skin and ear infection, Convenia cefovectin
2018-09-12	vet, skin infection, Temaril-P and Cerenia
2018-09-25	note growth or "blister like blob" on front leg been there a while
2018-11-20	stopped vitamins
2018-11-21	vomit
2018-12-21	vet, allergy pills and antimicrobial shampoo
2019-01-09	diarrhea
2019-01-10	diarrhea, no eating, vet metronidazole
2019-01-15	vet 2nd hand verbal report low thyroid no hard copy
2019-07-25	vomit
2020-02-10	bloody diarrhea overnight, few snacks in prior weeks.
2020-03-07	better, fur filling in
2020-11-12	dancing noted no bloody diarrhea in "long time now"
2020-12-19	Slower, picking up paws that feel cold, Barb claims she cried when picked up
2020-12-21	osteopath vet claims she has a virus and prescribed a special meal, silver wings, vibactra, and lachesis.
2020-12-29	leg bent under but walks ok, abdomen expanding similar to Andy
2021-01-16	possible bite or similar on left side of thick neck, apply oil
2021-03-25	alert and quick
2021-04-19	continued improvement, cough monitored intermittently
2021-10-01	continued to improve although maybe bigger belly
2021-10-07	On return from temp care, seems slow and cold ate ok but crying and won't go up steps.
2021-10-08	Warmer and faster made it slowly up steps but screamed on pickup . Worse on return from osteopath vet
2021-10-09	NOTE Spicey blood data/spicey/blood-2021-10-08.txt and medicines n ot recorded Nux Vomica 30C, amoxidrop, meloxidyl, furosemide, silver wingss.Spit up some of AM snack. Despite drastic low T4 and rat-tail refused to give T4 replacement.
2021-10-10	NOTE Spicey legs curling AM but improved shortly after AM snack alt hough breathing did not. Give the furosemide, some improvement . Evening crackl ing and clicking not eating or drinking but walking better and warm. Put to slee p later in day.

TABLE I: Highlights from timeline in Appendix. Ai. These are edited "raw" observations taken at the time indicated. Many informal terms are used. For example, "dancing" referred to animated running around prior to eating her main dinner.

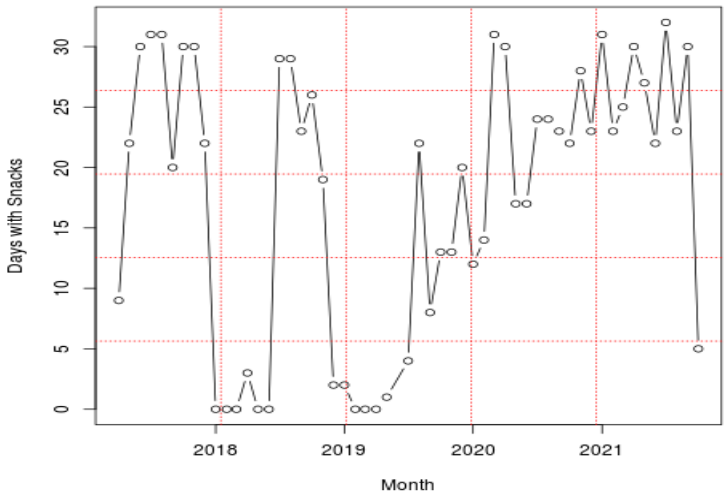

FIG. 1: Days in each month when Spicey may have gotten at least one snack. Snacks generally contained vitamins described here although not always. She was deprived during two time periods in early 2018 and 2019 prior to consistently getting vitamin snacks in January 2020.

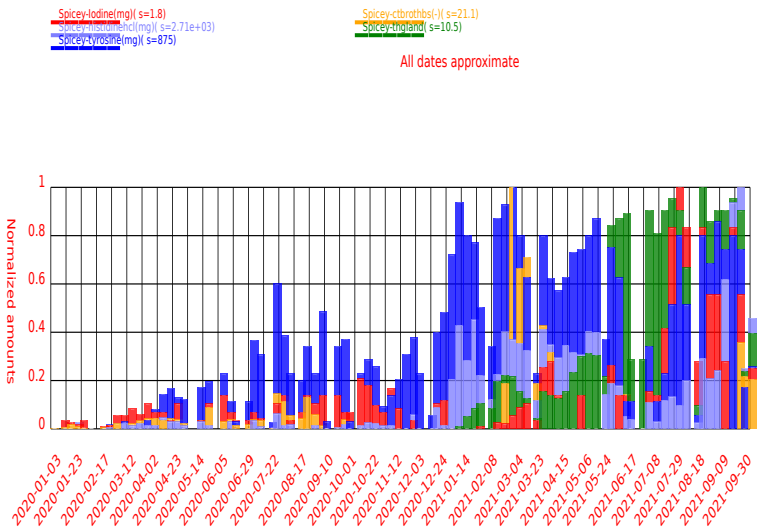

FIG. 2: Weekly histogram of some items thought to relate to her thyroid and overall health. Each bar represents the normalized amount of each item (**Iodine**,**Histidine**,**Tyrosine**,**ChickenThighs**,**thgland**) consumed in that week. Smaller values are in "front". Similiar values may be difficult to resolve and various attempts are mode to split the bars although the details of these infrequent events are not yet resolved.

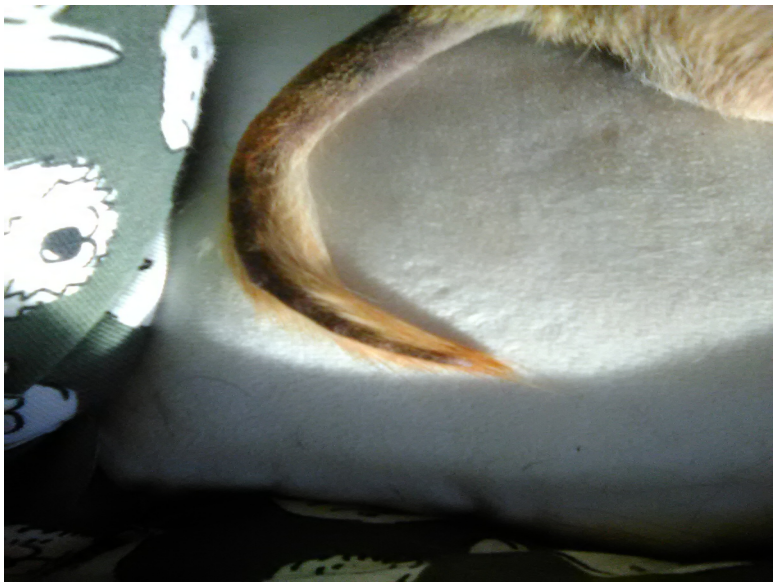

FIG. 3: Spicey's tail on 2020-12-29 showing partial fur loss or "rat-tail".

FIG. 4: 2020-12-29, Sitting with left front paw folded under although much of her fur is filled in. The dog on the right in the background is Dexter.

FIG. 5: Spicey in July 2021. Most of her bald areas were on the rear of her legs and her "rat tail" had not significantly filled in. Her limp paw was pretty much ok at this time .

FIG. 6: 2021-10-09 Fur patchy but mostly filling in, tongue sticking out, and some abdominal fluid.

Test	Value	Ref/Units	Comment
RBC	4.72	(5.83-9 M/muL)	L
Hematocrit	32.8	(36.6 - 54.5 pct)	L
Hemoglobin	11.8	(12.2-18.4 g/dL)	L
reticulocytes	1.1	pct	
WBC	4.73	(5.5-16.9 K/muL)	L
BUN	37	(7-27 mg/dL)	H
ALT	164	(10 - 125 U/L)	H
lipase	1735	(200-1800 U/L)	
total T4	< .5	(1-4 mug/dL)	L

TABLE II: Out of range and selected Spicey blood results from 2021-10-08. Manually typed from lab report

4. DISCUSSION

Whatever the cause of the bloody diarrhea, the combination of "snacks" appears to have stopped it for over a year and 1/2 with only one noted instance of diarrhea possibly due to vet directed medicines and meal. This seems to be an isolated event without notable blood. As discussed later, the snacks were designed mostly to replace important nutrients thought to be limiting the health of older dogs including those with with GI atrophy or dysfunction. While Spicey was already likely quite old for her breed, possibly the food combination achieved its objective and made her GI tract more robust and less susceptible to infection. Her picky eating tended to stop although she continued to prefer her main evening meal to the snacks, dancing for the former but requiring prompting to eat the latter. Part of the problem may be mechanical - with no teeth and large tongue, spoon feeding the drier snack may be easier than licking out of a bowl as she often ended up "mashing" food into the bowl. She also had a preference for the chicken thighs rather than the more commonly served breasts.

Most of her other problems could be related to her low T4 level. The first lab report suggestive of hypothyroidism was on 2019-01-15 which was confirmed as a problem on her last vet visit. While no replacement T4 was pursued, the "thgland" product begun in 2021-01-10 seemed to precede resolution of her limp paw. Reversible "unilateral forelimb lameness" was observed at least as early as 1993 in hypothyroid dogs treated with Thyroxine [5] . While taking this and additional vitamins including iodine and tyrosine, many of her symptoms resolved although her rat-tail, coughing, and fluid accumulation did not entirely go away.

Thinking outloud
Interestingly, there is a rat-tail syndrome in cattle linked to poor thermal regulation and it is even compared to dogs [19] but thyroid is not mentioned

The role of decreased thyroid hormones in her digestive problems is not known but it may have been a factor [35] [21]. Thyroid destruction has been observed to produce reduced RBC synthesis with preserved lifetimes in dogs that is not correctable with vitamin B-12 although parenteral iron may be helpful in cases [8].

Another dog of similar size eating a similar diet, Andy, was diagnosed with slightly low TT4 on 2020-11-25 (.8 mug/dl versus 1-4 reference range but with normal TT3 74(55-150 ng/dl)). Possibly some diet component contributed to the declines. At the time, the possibility was considered that excessive iodine cased lowered T4 but increasing Spicey's iodine later did not appear deleterious. An interesting discussion of goitrogen exposure and iodine intake is presented in the context of thyroid dysfunction associated with gallbladder pathology [2].

Spicey, as with Andy, also regularly had one SMVT substrate with each snack- biotin, pantothenic acid, or lipoic acid. SMVT was recently shown to transport iodide [33]. The other substrates are competitive inhibitors of this saturable transporter. It is possible that some physiological role was inhibited by the other supplements although typically NIS is considered the relevant transporter [34] . Novel iodide transporters have precedent, for example SLC26A7 [18] [16] .

Dietary fat composition is also thought to impact thyroid function [3]. Spicey's preference for fattier chicken may reflect that. Alternatively, the chicken thighs with skin and bone, compared to the boneless skinless breasts, produce significant gelatin when boiled(and the fat in the gelatin was usually skimmed off). The amino acid content such as glycine [22] or other components may be more important than the fat. Hypothyroidism combined with hyperlipidemia has been associated with paraparesis and pathological clotting [38] . There is no indication that Spicey was hyperlipidemic although she did receive regular vitamin K1 or K2 at around 2.5mg/day which may be a factor in clotting related diseases [28].

The thgland product is stated to be "thyroxine free" and it is unfortunate that dessicated thyroid was difficult to find commercially. Its amazing that most symptoms could resolve with this but the doses were large, 100mg three times per day or about 100mg/KgBW. This dosing was chosen based on the belief that it would act through T3 content which is expected to have a short half life [1]. T4 is produced in the thyroid while T3 is largely made in the periphery or locally with free T4 and T3 being subject to measurement errors [40]. TSH is often considered an accurate signal of demand for thyroid product and decreases with increasing T3 [31] . Normally, T4 replacement is the therapy of choice for lab confirmed hypothyroidism and T3 replacement is a controversial adjunct therapy [9] [10] . T4 is largely considered a prohormone with T3 being the active hormone [15] [23] allowing local deiodinases to respond to many signals [4] [41]. The thgland product contained no significant T4 and may have produced globally elevated T3 of unpredictable effect including depression of TSH leading to lowered TT4 levels suggestive of enhanced thyroid disease. Local regulation would be limited to transporters and destruction rather than local creation from T4. It would have been interesting to get free and total serum T3 as well as TSH at various times.

Unfortunately, the dog owner and osteopath vet had no interest in pursing the thyroid issue despite the lab results and clinical picture. More widely available dessicated thyroid including natural amounts of T4 may have made it easier to resolve Spicey's condition more completely and robustly.

The sudden deterioration is suggestive of withdrawal from the thgland product combined with decreasing endogenous

thyroid hormone production. This would be surprising given that for the prior few months she would go without the snacks for a week at a time without significant deterioration. Possibly the T4 level fell though a critical threshold making her more vulnerable. However, the owner left Spicey with a known indiscriminate care giver and the gaslighting disclaimer needs to be taken seriously with consideration given to careless or intentional acts. In the absence of that however, it does raise a concern that the hypothyroidism can be partially corrected making it more difficult to observe some damage which may suddenly dominate the clinical issues.

If her age estimate of 20 years is accurate, Spicey had already lived a fairly long time for a chihuahua when this effort began although normal lifespan estimates vary. One reports cites the AKC as reporting a lifespan of 12 years [13] ,another 13 years [39] ,16 years [30] ,with popular internet sites suggesting upper average limits of 20 years [36].

While many theories on longeivity exist, tryptophan metabolism recently emerged as a possible link between breed size and longevity [12]. The inverse association between size and longevity is in contrast to most other animals [17]. Possibly supplemental tryptophan filled an amino acid deficiency.

In addition to her "rat-tail" , Spicey was originally bald and developed head fur after earlier supplementation, probably in early 2017, but the details were not well recorded. Fur is generally dispensable for dogs in controlled setting and nutrient allocation may be an idiosyncratic feature that helps determine longevity. While alopecia or fur loss is common in chihuahua's, it is not immediately clear how often it is considered reversible in the absence of a specific external irritant such as a pathogen that can be eliminated. Spicey may have had a superior way to allocate nutrients and nutrient surplus allowed hair regrowth. She did however continue to have thin spots and a rat-tail pattern.

The final diet, except for the thgland product, is hopefully a good starting point for other old dogs. The thgland supplement may be useful for small dogs with hypothyroid conditions too but it is still unclear that using it without T4 is optimal.

5. CONCLUSIONS

Spicey's overall lifespan remains unknown but is apparently high for her breed. Her earlier health problems over the last few years of her life seemed to be either reduced or controlled until a few days prior to her death. She may have benefited from early and recent versions of a diet being optimized largely for older dogs. Her thyroid problem was incompletely addressed but significant symptom reduction occurred simultaneously with consumption of the thyroid glandular product. Its unfortunate that earlier intervention was not performed with T4 replacement or a dessicated thyroid product. Her detailed diet history between comparatively good health and her death a week later is also unfortunately lacking but illustrates the complexities of real problems with real world data. Hopefully these problems can be rectified in future work.

6. SUPPLEMENTAL INFORMATION

6.1. Computer Code

Script used to extract monthly snack counts

```
cat spicey_snacks.R

#  cat cases.tex | grep Spicey | sed -e 's/(.*)//g'| grep SNACK | sed -e 's/-/ /g' | awk '{print $1"-"$2
    "-"01}' | uniq -c > spicey_snacks_monthsx.txt

df<-read.table("spicey_snacks_monthsx.txt",header=F)

# convert date column to date class
dfd <- as.Date(df[,2], format = "%Y-%m")
dfd <- as.Date(df[,2])

# view R class of data
class(dfd)
## [1] "Date"

# view results
head(dfd)
## [1] "2013-08-21" "2013-08-26" "2013-08-27" "2013-09-01" "2013-09-09"
```

```
## [6] "2013-09-10"
plot(dfd,df$V1,type="b",xlab="Month",ylab="Days with Snacks")
grid(col="red",nx=5)
```

Making the diet component graph

```
./run_linc_graph -some-diet-plots txt/pin_spiceyi.txt thgland "tyrosine(mg)" "Iodine(mg)" "ctbrothbs(-)" "
    histidinehcl(mg)" 2>zzz2

relevant code from run_linc_graph:
CODE=322
CMD="$EXE -cmd \"read-ragged in $DATAFILE\" -cmd \"read-ragged p $PIN\" -cmd \"add-ragged p nfoods *\" -cmd
     \"add-ragged p foods $FOODS \" -cmd \"snacks-txt-svg-i $DESTF $CODE in p\" -quit "


cat txt/pin_spiceyi.txt

#xsz 2000
#xs 2000
xpitch 4
x_rule 14
period 7
#leg_x -200
xleg_y 20
xleg_sz 20
leg_x_frac .7
datey 200
foods tryptophan methionine B-100x doxycycline biotin K2 threonine
foods Ivermectin threonine methionine histidinehcl doxycycline B-3 K2 Cu
foods Iodine xlipoicacid lysinehcl xCu xtryptophan Ivermectin xthreonine xmethionine doxycycline xK2 xZZB
    -100
foods tryptophan Ivermectin xIodine B-6 biotin threonine B-100 methionine doxycycline K2
#foods
dogs Spicey
# defaults work now these changed with vode
#sample_idx 6
#food_idx 7
#sample_idx 8
#food_idx 9
# should use period 1 for filtering now
value_idx_name m_wavg
# use the name not the position
value_idx 0
# some general things wtill work old way
datemin 2020-01-01
#datemin 2018-01-01
#x_rule 7
#xpitch 10
histogram_like 0x0200
#histogram_like 0x000
histo_fill 1
# this appears to work if no regex hits
default_thick 10
thick Happy-K2 5
tm 500
# this is the dates x axis labels pos
#yleg 0
# this is the starting height of the actual legend
leg_y 50
opaq .5
szleg 40 # this is for the axes
leg_sz 30 # this is the legend text size
min_x_space 70
# originally the dash spec was supposed to be derived from a line similar to coefficients
# but it really makes more sense as a matrix as generally combinations will be made
```

```
# and more so with symbol attributes
#dashes * K2 5 5
label_mod 1
label_res 0
rsymbolsz 5 * *
# this works
dashes * 50 2
dashes .*-tryptophan 20 5
# this does not currently work right.
#symbol * * ngon 2 5 0
# this is now apparently piced up into attmap by rule_list
# taking the last sgring as a literal plotting symbol
#symbol * B-100 ngon 2 6 0
#color * * green
# not sure if this works or not
ryfunc pp * *
#thick Happy-methionine 50
#thick * 5
thick Andy-vitamina 20
color Happy-K2 "#0000FF"
color Happy-histidinehcl "#FF0000"
color Happy-m.* "#FF00"
color Happy-t.* "#000000"
color Happy-isoleu.* "orange"
#color * black
color .*-SnAgOx red
color .*-tryptophan blue
color .*-Kibble green
color .*-thgland green
#color .*-thgland orange
color .*-.odine red
color .*-tyrosine blue
color .*-lipoic purple
color olive red
#color tyrosine red
color arginine blue
color vitamina green
color optizn purple
color valine orange
color ctbrothbs orange
color cbbroth blue
color K2 red
color K1 red
dashes .*-K1 10 10
#color Iodine purple
color furosemide green
color diroban gold
color b20ngnc red
color b15ngnc orange
color b10ngnc blue
color b7ngnc green
#color tyrosine blue


opaq * .78
#opaq *K2 1
# define one filter
filter unity 0 uniform normalize
filter flat 3 uniform normalize
# a missing filter may produce no output.
path-filter * unity
path-filter methionine unity
#foodalias b[0-9]*ngnc beef 1
foodalias vmap trash 0
```

```
foodalias thgland\\(mg\\) thgland .005
foodalias thgland\\(tsp\\) thgland 5
foodalias thgland\\(capsule\\) thgland 1
#foodalias histidine ASDC 1
foodalias Kibble Kibble 1
#foodalias (threonine|valine|leucine|lysine|tryptophan|histidine|arginine|phenylalanine|tyrosine|methionine
    ) acids 1
#
#foodalias (ctbroth|ctskin) chicken 1
#foodalias salmon salmon 1
foodalias 11PC KCl 1
foodalias 11KC KCl 1
```

Making the monthly diet tables

```
 1900  ./run_linc_graph -dt-mo txt/spicey2.txt
```

excerpt from run_linc_graph:

```
CMD="$EXE -cmd \"read-ragged in $DATAFILE\" -cmd \"read-ragged p $PIN\" -cmd \"snacks-time $OFILE 0x0b in p
     4\" -quit "
```

```
 cat txt/spicey2.txt
maxsz 50
datemin 2017-08-01
#datemin 2021-07-01
datemax 2021-11-01
dogs Spicey
# only with the multiple dogs
#side-by-side 2
#side-by-side 2
scope
variable datemin mjmdatemin
variable datemax mjmdatemax
variable footnotes mjmsuperscripts
caption  A summary of most dietary components and events for selected months between \\mjmdatemin and \\
    mjmdatemax. Format is "average daily amount ;maximum; days given/ days in interval ". Units are
    arbitrary except where noted. Any superscripts are defined as follows: \\mjmsuperscripts
foodalias vmap xxx 0.0
#foodalias ctskin ctbrothbs 1.0
#foodalias ctbroth ctbrothbs 1.0
#foodalias 11PC KCl/citrate 1.0
#foodalias 11KC KCl/citrate 1.0
foodalias multiB B-multi 1.0
#datealias 2020-12 "2020-12 Dec"
datealias 2018-01 "2018-01 Jan"
datealias 2018-02 "2018-02 Feb"
datealias 2018-03 "2018-03 March"
datealias 2018-04 "2018-04 April"
datealias 2018-05 "2018-05 May"
datealias 2018-06 "2018-06 June"
datealias 2018-07 "2018-07 July"
datealias 2018-08 "2018-08 Aug"
datealias 2018-09 "2018-09 Sept"
datealias 2018-10 "2018-10 Oct"
datealias 2018-11 "2018-11 Nov"
datealias 2018-12 "2018-12 Dec"
datealias 2019-01 "2019-01 Jan"
datealias 2019-02 "2019-02 Feb"
datealias 2019-03 "2019-03 March"
datealias 2019-04 "2019-04 April"
```

```
datealias 2019-05 "2019-05 May"
datealias 2019-06 "2019-06 June"
datealias 2019-07 "2019-07 July"
datealias 2019-08 "2019-08 Aug"
datealias 2019-09 "2019-09 Sept"
datealias 2019-10 "2019-10 Oct"
datealias 2019-11 "2019-11 Nov"
datealias 2019-12 "2019-12 Dec"
datealias 2020-01 "2020-01 Jan"
datealias 2020-02 "2020-02 Feb"
datealias 2020-03 "2020-03 March"
datealias 2020-04 "2020-04 April"
datealias 2020-05 "2020-05 May"
datealias 2020-06 "2020-06 June"
datealias 2020-07 "2020-07 July"
datealias 2020-08 "2020-08 Aug"
datealias 2020-09 "2020-09 Sept"
datealias 2020-10 "2020-10 Oct"
datealias 2020-11 "2020-11 Nov"
datealias 2020-12 "2020-12 Dec"
datealias 2021-01 "2021-01 Jan"
datealias 2021-02 "2021-02 Feb"
datealias 2021-03 "2021-03 March"
datealias 2021-04 "2021-04 April"
datealias 2021-05 "2021-05 May"
datealias 2021-06 "2021-06 June"
datealias 2021-07 "2021-07 July"
datealias 2021-08 "2021-08 Aug"
datealias 2021-09 "2021-09 Sept"
datealias 2021-10 "2021-10 Oct"
#datealias 2021-08 "2021-08 Aug"
grouping vitamin 2 "{\\bf VITAMIN}"
grouping medicine 3 "{\\bf MEDICINE}"
grouping outcome 4 "{\\bf RESULT}"
grouping food 1 "{\\bf FOOD}"
grouping 0 "{\\bf UNCLASSIFIED}"
superscript biotin(mg) a
superscript pantothenate(mg) a
superscript Iodine(mg) a
superscript lipoicacid(mg) a
footnote a SMVT substrate. Biotin, Pantothenate, Lipoic Acid, and Iodine known to compete.
superscript lysine b
superscript lysinehcl b
superscript arginine b
#footnote b Arginine and Lysine known to compete.
superscript b7ngnc c
superscript b10ngnc c
superscript b15ngnc c
superscript b20ngnc c
footnote c hamburger with varying fat percentages- 7,10,15,20, etc. .
```

‘‘

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Appendix A: Spicey Note Highlights

Date	Observations
2017-06-06	first NOTE on Spicey
2017-10-19	dentist
2017-12-13	mold or similar underside of rear legs
2017-12-18	ate but "acting sick"
2017-12-20	to vet, cries when picked up, possible herniated disck given clindamycin and anti-inflammatory shot
2017-12-25	more lively after "goatmilk fast"
2018-03-09	seems more interested in snack
2018-03-16	seems more interested in snack
2018-04-20	rejects snack
2018-06-05	vet, skin and ear infection, Convenia cefovectin
2018-07-03	started some vitamin snacks
2018-08-29	possibly vomit chinese food
2018-09-12	vet, skin infection, Temaril-P and Cerenia
2018-09-25	note growth or blsiter on fron leg been there a while
2018-11-03	goatmilk again
2018-11-20	stopped vitamins
2018-11-26	improved after vet visit, not like Royal Canin
2018-11-12	refusing al in PM
2018-11-21	vomit
2018-12-01	presumably ate Amdro in laundry room
2018-12-21	vet, allergy pills and antimicrobial shampoo
2019-01-09	diarrhea
2019-01-10	diarrhea, no eating, vet metronidazole
2019-01-15	vet 2nd hand verbal report low thyroid no hard copy
2019-07-25	vomit
2019-08-05	restart vitamin snacks
2019-08-09	not eating well again
2019-12-09	notably better anxious to eat

TABLE III: Edited, selected notes taken over the course of observations, 2018-2019

Date	Observations
2020-01-16	bloody diarrhea early
2020-02-10	bloody diarrhea overnight, few snacks in prior weeks.
2020-02-17	bloody diarrhea previous night
2020-03-07	better, fur filling in
2020-03-09	dancing
2020-11-12	dancing noted no bloody diarrhea in "long time now"
2020-12-01	dancing noted again, quicker
2020-12-19	Slower, picking up paws that feel cold, Barb claims she cried when pixked up
2020-12-21	osteopath vet claims she has a virus and prescribed a special meal, silver wings, vibactra, and lachesis.
2020-12-29	leg bent under but church walk ok, abdomen expanding similar to Andy
2021-01-06	some diarhea, not sure what Barb gives her but some improvement in leg
2021-01-10	begin using the "thgland" product in very small doses
2021-01-16	possible bite or similar on left side of thick neck, apply oil
2021-03-25	alert and quick mentioned iodine
2021-04-19	continued improvmenet, suspected Zn, I thgland . Circa cough being monitored intermittendly
2021-10-01	continued to improve although maybe bigger belly
2021-10-07	On return from temp care, seems slow and cold ate ok but crying and won't go up steps.
2021-10-08	Warmer and faster made it slowly up steps but screamed on pickup . Worse on return from osteopath vet
2021-10-09	NOTE Spicey blood data/spicey/blood-2021-10-08.txt and medicines not recorded Nux Vomica 30C, amoxidrop, meloxidyl, furosemide, silver wings aka swings. Spit up some of AM snack. Despite drastic low T4 and rat-tail refused to give T4 replacement.
2021-10-10	NOTE Spicey legs curling AM but improved shortly after AM snack although breathing did not. Give the furosemide, some improvement . Evening crackling and clicking not eating or drinking but walking better and warm. Put to sleep later in day.

TABLE IV: Edited, selected notes taken over the course of observations, 2020-2021

Appendix B: Monthly Diet Summary

Name	2018-01 Jan	2018-02 Feb	2018-03 March	2018-04 April	2018-05 May
FOOD					
KCl(tsp kcl)					
KibbleLogic					
aimeal					
b10ngnc[c]					
b15ngnc[c]		0.11 ;1;2/28			
b20ngnc[c]	1.8 ;1;30/30	1.7 ;1;27/28	1.6 ;1;27/29	1.6 ;1;30/30	0.88 ;1;16/26
b25ngnc					
b7ngnc[c]					0.077 ;1;1/26
b9ngnc					
canned					
carrot	1 ;1;24/30	1.1 ;1;21/28	0.48 ;1;11/29	0.17 ;1;5/30	0.31 ;1;8/26
cbbrothbs					
cbbroth					
citrate(tsp citrate)					
clbrothbs					
colostrum(tsp)					
cooked					
ctbrothbs	1.7 ;1;28/30	1.6 ;1;26/28	1.5 ;1;28/29	1.5 ;1;29/30	1.5 ;1;23/26
ctbrothb		0.29 ;1;6/28	0.17 ;1;4/29		0.19 ;1;3/26
ctbroths	0.033 ;1;1/30				
ctbroth					
ctskinbs					
ctskinb					
eggo3	0.023 ;0.1;6/30	0.018 ;0.1;5/28	7.24e-03 ;0.1;3/29	8.33e-03 ;0.1;3/30	0.058 ;0.2;13/26
flour					
garlic					
habanero					
jalapeno					
oliveoil(tsp)					
oliveoil					0.038 ;1;1/26
p20ngnc					
salmon				0.87 ;1;16/30	0.77 ;1;9/26
shrimp(grams)	5 ;10;16/30	0.18 ;3;3/28	0.034 ;1;1/29	0.2 ;4.9;2/30	0.81 ;10;3/26
spinach					
tuna(oz)					
VITAMIN					
B-1(mg)					
B-100(count)					
B-12(mg)					
B-2(mg)					
B-3(mg)					
B-6(mg)					
B-multi					
Cu(mg)					
D-3(iu)					
Iodine(mg)[a]					
K1(mg)					
K2(mg)					
Mg(mg)					

TABLE V: Part 1 of 3. Events Summary for Spicey from 2018-01-01 to 2021-10-05A summary of most dietary components and events for selected months between 2018-01-01and 2021-10-05. Format is average daily amount ;maximum; days given/ days in interval . Units are arbitrary except where noted. Any superscripts are defined as follows: **a)** SMVT substrate. Biotin, Pantothenate, Lipoic Acid, and Iodine known to compete..**c)** hamburger with varying fat percentages- 7,10,15,20, etc. .. **Tables have been spot checked and are believed accurate but software is being developed and debugged concurrently with manuscript preparation and values should not be assumed to be accurate.**

Name	2018-01 Jan	2018-02 Feb	2018-03 March	2018-04 April	2018-05 May
Mg					
Mn(mg)					
Se(mcg)					
Se(tsp)					
Zn(mg)					
arginine(mg)					
arginine$^{(b)}$					
biotin(mg)$^{(a)}$					
d-serine					
folate(mg)					
histidinehcl(mg)					
isoleucine(mg)					
lecithin(lecu)					
lecithin(mg)					
leucine(mg)					
lipoicacid(mg)$^{(a)}$					
lysine(mg)					
lysinehcl(mg)					
methionine(mg)					
pantothenate(mg)$^{(a)}$					
pantothenate					
phenylalanine(mg)					
taurine(mg)					
threonine(mg)					
tryptophan(mg)					
tryptophan(tsp)					
tyrosine(mg)					
tyrosine					
valine(mg)					
vitamina(iu)					
vitaminc(mg)					
zn(mg zn)					
MEDICINE					
Ivermectin				0.033 ;1;1/30	
SnAg					
Temaril-P					
bor-l-immune					
cerenia					
clindamycin	0.033 ;1;1/30				
sentinelspectrum					
swings					
thgland(capsule)					
thgland(mg)					
thgland(tsp)					
RESULT					
cough					
photo					
vomit					
weight(kg)					

TABLE VI: Part 2 of 3. Events Summary for Spicey from 2018-01-01 to 2021-10-05A summary of most dietary components and events for selected months between 2018-01-01and 2021-10-05. Format is average daily amount ;maximum; days given/ days in interval . Units are arbitrary except where noted. Any superscripts are defined as follows: **a)** SMVT substrate. Biotin, Pantothenate, Lipoic Acid, and Iodine known to compete..**c)** hamburger with varying fat percentages- 7,10,15,20, etc. .. **Tables have been spot checked and are believed accurate but software is being developed and debugged concurrently with manuscript preparation and values should not be assumed to be accurate.**

Name	2018-01 Jan	2018-02 Feb	2018-03 March	2018-04 April	2018-05 May
11KC					
B-3					
BBP	0.033 ;1;1/30				
HeartGard					
KibbleAmJrLaPo	0.067 ;1;2/30	0.1 ;1;6/28	6.90e-03 ;0.2;1/29		
KibbleDiamond					
Misccanned					
Misckibble					
SolidGold					
TunaWPA					
bssngnc					
goatmilk					
heartgard					
heartworm					
koil					
lacnesis					
vibactra					
worm			0.017 ;0.5;1/29		
yeggo3					

TABLE VII: Part 3 of 3. Events Summary for Spicey from 2018-01-01 to 2021-10-05A summary of most dietary components and events for selected months between 2018-01-01and 2021-10-05. Format is average daily amount ;maximum; days given/ days in interval . Units are arbitrary except where noted. Any superscripts are defined as follows: **a)** SMVT substrate. Biotin, Pantothenate, Lipoic Acid, and Iodine known to compete..**c)** hamburger with varying fat percentages- 7,10,15,20, etc. .. **Tables have been spot checked and are believed accurate but software is being developed and debugged concurrently with manuscript preparation and values should not be assumed to be accurate.**

Name	2018-06 June	2018-07 July	2018-08 Aug	2018-09 Sept	2018-10 Oct
FOOD					
KCl(tsp kcl)					
KibbleLogic					
aimeal					
b10ngnc[(c)]				0.045 ;1;2/25	0.014 ;0.025;7/25
b15ngnc[(c)]					0.18 ;1;11/25
b20ngnc[(c)]		1.4 ;1;29/30	0.68 ;1;26/31	0.6 ;1;15/25	0.18 ;1;9/25
b25ngnc					
b7ngnc[(c)]	0.85 ;1;15/20	0.038 ;1;1/30	0.18 ;1;5/31	0.18 ;1;7/25	
b9ngnc					
canned					
carrot	0.1 ;1;2/20	0.39 ;1;30/30	0.11 ;0.08;28/31	0.22 ;1;22/25	0.097 ;1;25/25
cbbrothbs					
cbbroth					
citrate(tsp citrate)					
clbrothbs					0.047 ;1;3/25
colostrum(tsp)					
cooked					
ctbrothbs	1.4 ;1;16/20	1.2 ;1;30/30	1.2 ;1;31/31	0.98 ;1;23/25	0.77 ;1;23/25
ctbrothb	0.5 ;1;6/20				
ctbroths					
ctbroth					
ctskinbs		0.021 ;0.25;7/30	0.021 ;0.08;9/31	0.037 ;0.25;14/25	0.017 ;0.025;12/25
ctskinb					1.00e-03 ;0.025;1/25
eggo3	0.13 ;0.25;14/20	0.1 ;1;29/30	0.073 ;0.25;28/31	0.032 ;0.12;21/25	0.034 ;0.12;25/25
flour					
garlic		0.014 ;0.08;6/30	0.05 ;0.08;19/31	0.064 ;0.25;21/25	0.057 ;0.065;25/25
habanero					
jalapeno					
oliveoil(tsp)					
oliveoil	0.1 ;1;2/20	0.076 ;0.33;15/30	0.039 ;0.08;16/31	0.087 ;1;17/25	0.042 ;0.05;22/25
p20ngnc					
salmon	0.35 ;1;4/20	0.18 ;1;3/30		0.45 ;1;7/25	
shrimp(grams)	1 ;10;3/20	2.7 ;60;6/30	0.9 ;10;7/31	1.8 ;11;6/25	0.78 ;8.1;5/25
spinach		0.25 ;0.5;29/30	0.11 ;0.08;28/31	0.063 ;0.25;21/25	0.055 ;0.065;25/25
tuna(oz)					
VITAMIN					
B-1(mg)		15 ;40;13/30	18 ;40;17/31	4.5 ;25;5/25	3.6 ;25;6/25
B-100(count)		0.017 ;0.5;1/30	0.032 ;0.5;2/31	3.50e-03 ;0.05;3/25	4.00e-03 ;0.025;4/25
B-12(mg)		0.013 ;0.094;4/30	0.019 ;0.12;6/31	3.00e-03 ;0.037;2/25	9.00e-03 ;0.075;5/25
B-2(mg)		0.21 ;6.2;1/30	1 ;7;5/31	0.04 ;1;1/25	
B-3(mg)				0.8 ;5;6/25	0.5 ;2.5;5/25
B-6(mg)		1.4 ;6.2;7/30	3.3 ;8;15/31	0.7 ;5;5/25	0.7 ;2.5;7/25
B-multi					
Cu(mg)		0.021 ;0.12;5/30	0.073 ;0.16;16/31	0.058 ;0.5;13/25	0.072 ;0.1;22/25
D-3(iu)					
Iodine(mg)[(a)]		6.25e-03 ;0.062;3/30	0.011 ;0.062;6/31	8.60e-03 ;0.05;5/25	9.00e-03 ;0.05;7/25
K1(mg)					
K2(mg)		0.19 ;0.94;6/30	0.36 ;1.2;11/31	0.28 ;3.8;8/25	0.17 ;0.75;10/25
Mg(mg)		5.2 ;56;3/30	10 ;64;9/31	3.8 ;12;9/25	6.8 ;32;10/25

TABLE VIII: Part 1 of 3. Events Summary for Spicey from 2018-01-01 to 2021-10-05A summary of most dietary components and events for selected months between 2018-01-01and 2021-10-05. Format is average daily amount ;maximum; days given/ days in interval . Units are arbitrary except where noted. Any superscripts are defined as follows: **a)** SMVT substrate. Biotin, Pantothenate, Lipoic Acid, and Iodine known to compete..**c)** hamburger with varying fat percentages- 7,10,15,20, etc. .. **Tables have been spot checked and are believed accurate but software is being developed and debugged concurrently with manuscript preparation and values should not be assumed to be accurate.**

Name	2018-06 June	2018-07 July	2018-08 Aug	2018-09 Sept	2018-10 Oct
Mg					
Mn(mg)			8.06e-03 ;0.25;1/31		
Se(mcg)					
Se(tsp)					
Zn(mg)					
arginine(mg)				14 ;250;4/25	14 ;75;9/25
arginine[b]		6.83e-03 ;0.08;3/30	0.025 ;0.12;11/31	3.40e-03 ;0.05;3/25	
biotin(mg)[a]		0.32 ;0.8;14/30	0.47 ;0.8;23/31	0.31 ;2.5;19/25	0.17 ;0.5;14/25
d-serine		4.17e-03 ;0.062;2/30	0.011 ;0.08;5/31	6.00e-03 ;0.05;4/25	8.00e-03 ;0.05;7/25
folate(mg)					
histidinehcl(mg)					
isoleucine(mg)					
lecithin(lecu)		48 ;400;13/30	40 ;96;14/31	49 ;300;16/25	32 ;60;18/25
lecithin(mg)					
leucine(mg)			8.7 ;50;4/31	39 ;156;21/25	37 ;62;25/25
lipoicacid(mg)[a]			0.48 ;5;3/31		
lysine(mg)					1.3 ;32;1/25
lysinehcl(mg)		34 ;108;11/30	94 ;104;26/31	48 ;65;21/25	56 ;84;24/25
methionine(mg)					
pantothenate(mg)[a]		8.4 ;40;7/30	21 ;40;18/31	9.7 ;25;14/25	7 ;12;14/25
pantothenate				1.00e-03 ;0.025;1/25	
phenylalanine(mg)					0.5 ;12;1/25
taurine(mg)		35 ;81;16/30	59 ;52;27/31	37 ;162;21/25	37 ;42;25/25
threonine(mg)					
tryptophan(mg)					2 ;12;4/25
tryptophan(tsp)					
tyrosine(mg)					
tyrosine					
valine(mg)					
vitamina(iu)					
vitaminc(mg)					
zn(mg zn)					
MEDICINE					
Ivermectin				0.04 ;1;1/25	0.04 ;1;1/25
SnAg					
Temaril-P				0.32 ;0.5;12/25	
bor-l-immune		0.033 ;1;1/30			
cerenia				0.04 ;1;1/25	
clindamycin					
sentinelspectrum					
swings					
thgland(capsule)					
thgland(mg)					
thgland(tsp)					
RESULT					
cough					
photo					
vomit					
weight(kg)					

TABLE IX: Part 2 of 3. Events Summary for Spicey from 2018-01-01 to 2021-10-05A summary of most dietary components and events for selected months between 2018-01-01and 2021-10-05. Format is average daily amount ;maximum; days given/ days in interval . Units are arbitrary except where noted. Any superscripts are defined as follows: **a)** SMVT substrate. Biotin, Pantothenate, Lipoic Acid, and Iodine known to compete..**c)** hamburger with varying fat percentages- 7,10,15,20, etc. .. **Tables have been spot checked and are believed accurate but software is being developed and debugged concurrently with manuscript preparation and values should not be assumed to be accurate.**

Name	2018-06 June	2018-07 July	2018-08 Aug	2018-09 Sept	2018-10 Oct
11KC		0.043 ;0.33;13/30	0.091 ;0.08;27/31	0.064 ;0.25;21/25	0.057 ;0.065;25/25
B-3			2.02e-03 ;0.062;1/31		
BBP					
HeartGard					
KibbleAmJrLaPo			0.032 ;1;1/31		0.08 ;1;2/25
KibbleDiamond		0.033 ;1;1/30	0.065 ;1;2/31		
Misccanned		0.067 ;1;2/30			
Misckibble		0.033 ;1;1/30			
SolidGold					
TunaWPA					
bssngnc					
goatmilk					
heartgard					
heartworm					
koil					
lacnesis					
vibactra					
worm		8.33e-03 ;0.25;1/30		1.00e-02 ;0.25;1/25	
yeggo3					

TABLE X: Part 3 of 3. Events Summary for Spicey from 2018-01-01 to 2021-10-05A summary of most dietary components and events for selected months between 2018-01-01and 2021-10-05. Format is average daily amount ;maximum; days given/ days in interval . Units are arbitrary except where noted. Any superscripts are defined as follows: **a)** SMVT substrate. Biotin, Pantothenate, Lipoic Acid, and Iodine known to compete..**c)** hamburger with varying fat percentages- 7,10,15,20, etc. .. **Tables have been spot checked and are believed accurate but software is being developed and debugged concurrently with manuscript preparation and values should not be assumed to be accurate.**

Name	2018-11 Nov	2018-12 Dec	2019-01 Jan	2019-02 Feb	2019-03 March
FOOD					
KCl(tsp kcl)					
KibbleLogic					
aimeal					
b10ngnc[c]	0.011 ;0.025;6/23		0.23 ;1;5/22	0.22 ;1;4/18	0.14 ;1;3/21
b15ngnc[c]		0.056 ;1;1/18	0.27 ;1;6/22	0.17 ;1;3/18	0.14 ;1;3/21
b20ngnc[c]	0.1 ;1;7/23	5.56e-04 ;0.01;1/18	0.14 ;1;3/22	0.056 ;1;1/18	
b25ngnc					
b7ngnc[c]	9.13e-03 ;0.025;5/23		0.045 ;1;1/22	0.056 ;1;1/18	0.52 ;1;11/21
b9ngnc					
canned					
carrot	0.078 ;1;18/23	0.11 ;1;1/18	0.045 ;1;1/22		
cbbrothbs					
cbbroth					
citrate(tsp citrate)					
clbrothbs		0.11 ;1;2/18			
colostrum(tsp)					
cooked					
ctbrothbs	0.56 ;1;19/23	0.83 ;1;14/18	0.95 ;1;20/22	0.94 ;1;17/18	1 ;1;21/21
ctbrothb					
ctbroths					
ctbroth					
ctskinbs	0.02 ;0.025;14/23	0.056 ;1;1/18			
ctskinb	1.09e-03 ;0.025;1/23				
eggo3	0.02 ;0.05;18/23		9.09e-04 ;0.01;2/22		
flour					
garlic	0.035 ;0.025;18/23				
habanero					
jalapeno					
oliveoil(tsp)					
oliveoil	0.034 ;0.025;18/23				
p20ngnc					
salmon	0.39 ;1;7/23	0.28 ;1;4/18	0.18 ;1;4/22	0.11 ;1;2/18	
shrimp(grams)	0.44 ;5;3/23	0.02 ;0.09;4/18	2 ;10;7/22	1.7 ;10;4/18	1.9 ;10;4/21
spinach	0.035 ;0.025;18/23				
tuna(oz)					
VITAMIN					
B-1(mg)	1.1 ;12;2/23				
B-100(count)	1.63e-03 ;0.025;2/23				
B-12(mg)	4.89e-03 ;0.037;3/23				
B-2(mg)					
B-3(mg)	0.48 ;2.5;5/23				
B-6(mg)	0.43 ;2.5;4/23				
B-multi					
Cu(mg)	0.043 ;0.05;17/23				
D-3(iu)					
Iodine(mg)[a]	3.26e-03 ;0.025;3/23				
K1(mg)					
K2(mg)	0.095 ;0.38;6/23				
Mg(mg)	5.4 ;12;10/23				

TABLE XI: Part 1 of 3. Events Summary for Spicey from 2018-01-01 to 2021-10-05A summary of most dietary components and events for selected months between 2018-01-01and 2021-10-05. Format is average daily amount ;maximum; days given/ days in interval . Units are arbitrary except where noted. Any superscripts are defined as follows: **a)** SMVT substrate. Biotin, Pantothenate, Lipoic Acid, and Iodine known to compete..**c)** hamburger with varying fat percentages- 7,10,15,20, etc. .. **Tables have been spot checked and are believed accurate but software is being developed and debugged concurrently with manuscript preparation and values should not be assumed to be accurate.**

Name	2018-11 Nov	2018-12 Dec	2019-01 Jan	2019-02 Feb	2019-03 March
Mg					
Mn(mg)					
Se(mcg)					
Se(tsp)					
Zn(mg)					
arginine(mg)	7.2 ;38;5/23				
arginine[b]					
biotin(mg)[a]	0.098 ;0.25;9/23				
d-serine	3.70e-03 ;0.025;4/23				
folate(mg)					
histidinehcl(mg)	3.8 ;18;4/23				
isoleucine(mg)					
lecithin(lecu)	23 ;30;9/23				
lecithin(mg)					
leucine(mg)	25 ;166;17/23				
lipoicacid(mg)[a]					
lysine(mg)	1.4 ;32;1/23				
lysinehcl(mg)	28 ;35;17/23				
methionine(mg)					
pantothenate(mg)[a]	4.9 ;12;9/23				
pantothenate					
phenylalanine(mg)	3.8 ;12;7/23				
taurine(mg)	23 ;16;18/23				
threonine(mg)					
tryptophan(mg)	2.7 ;12;5/23				
tryptophan(tsp)					
tyrosine(mg)	2.7 ;12;5/23				
tyrosine					
valine(mg)					
vitamina(iu)					
vitaminc(mg)					
zn(mg zn)					
MEDICINE					
Ivermectin		0.056 ;1;1/18			
SnAg					
Temaril-P					
bor-l-immune					
cerenia					
clindamycin					
sentinelspectrum					0.048 ;1;1/21
swings					
thgland(capsule)					
thgland(mg)					
thgland(tsp)					
RESULT					
cough					
photo					
vomit					
weight(kg)	0.12 ;2.7;1/23				

TABLE XII: Part 2 of 3. Events Summary for Spicey from 2018-01-01 to 2021-10-05A summary of most dietary components and events for selected months between 2018-01-01and 2021-10-05. Format is average daily amount ;maximum; days given/ days in interval . Units are arbitrary except where noted. Any superscripts are defined as follows: **a)** SMVT substrate. Biotin, Pantothenate, Lipoic Acid, and Iodine known to compete..**c)** hamburger with varying fat percentages- 7,10,15,20, etc. .. **Tables have been spot checked and are believed accurate but software is being developed and debugged concurrently with manuscript preparation and values should not be assumed to be accurate.**

Name	2018-11 Nov	2018-12 Dec	2019-01 Jan	2019-02 Feb	2019-03 March
11KC	0.035 ;0.025;18/23				
B-3					
BBP					
HeartGard					
KibbleAmJrLaPo		0.22 ;1;4/18			
KibbleDiamond					
Misccanned					
Misckibble					
SolidGold		0.28 ;1;2/18			
TunaWPA					
bssngnc					
goatmilk	0.043 ;1;1/23	0.28 ;1;3/18			
heartgard					
heartworm					
koil					
lacnesis					
vibactra					
worm					
yeggo3					

TABLE XIII: Part 3 of 3. Events Summary for Spicey from 2018-01-01 to 2021-10-05A summary of most dietary components and events for selected months between 2018-01-01and 2021-10-05. Format is average daily amount ;maximum; days given/ days in interval . Units are arbitrary except where noted. Any superscripts are defined as follows: **a)** SMVT substrate. Biotin, Pantothenate, Lipoic Acid, and Iodine known to compete..**c)** hamburger with varying fat percentages- 7,10,15,20, etc. .. **Tables have been spot checked and are believed accurate but software is being developed and debugged concurrently with manuscript preparation and values should not be assumed to be accurate.**

Name	2019-04 April	2019-05 May	2019-06 June	2019-07 July	2019-08 Aug
FOOD					
KCl(tsp kcl)		7.41e-04 ;0.02;1/27			0.013 ;0.025;22/24
KibbleLogic				0.022 ;0.5;1/23	
aimeal					
b10ngnc[(c)]	0.23 ;1;6/26	0.11 ;1;3/27		0.2 ;1;5/23	0.012 ;0.05;5/24
b15ngnc[(c)]	0.038 ;1;1/26	0.33 ;1;9/27		0.22 ;1;5/23	0.053 ;1;6/24
b20ngnc[(c)]	0.35 ;1;9/26	0.23 ;1;6/27	0.25 ;1;4/16	0.39 ;1;9/23	0.19 ;1;7/24
b25ngnc					
b7ngnc[(c)]	0.31 ;1;8/26	0.33 ;1;9/27	0.75 ;1;12/16	0.13 ;1;3/23	0.053 ;1;7/24
b9ngnc					
canned					0.042 ;1;1/24
carrot	0.038 ;1;1/26	2.96e-03 ;0.08;1/27		0.043 ;1;1/23	0.037 ;0.05;18/24
cbbrothbs					
cbbroth					
citrate(tsp citrate)		7.41e-04 ;0.02;1/27			6.15e-03 ;0.025;11/24
clbrothbs					
colostrum(tsp)					
cooked					0.015 ;0.1;5/24
ctbrothbs	0.92 ;1;24/26	0.97 ;1;26/27	0.81 ;1;13/16	0.85 ;1;20/23	0.3 ;1;23/24
ctbrothb					
ctbroths					
ctbroth					
ctskinbs					
ctskinb					
eggo3	3.85e-04 ;0.01;1/26	1.48e-03 ;0.04;1/27			0.015 ;0.025;17/24
flour					0.013 ;0.1;3/24
garlic		2.96e-03 ;0.08;1/27			0.021 ;0.05;14/24
habanero					4.17e-03 ;0.1;1/24
jalapeno					4.17e-03 ;0.1;1/24
oliveoil(tsp)					
oliveoil					0.026 ;0.1;11/24
p20ngnc					1.67e-03 ;0.04;1/24
salmon	0.23 ;1;5/26		0.31 ;1;5/16	0.43 ;1;8/23	0.09 ;1;6/24
shrimp(grams)	0.96 ;10;3/26	1.1 ;10;4/27		0.24 ;3;2/23	0.23 ;1;7/24
spinach		2.96e-03 ;0.08;1/27			
tuna(oz)					
VITAMIN					
B-1(mg)					
B-100(count)					5.26e-03 ;0.03;6/24
B-12(mg)					
B-2(mg)					
B-3(mg)					0.46 ;5;3/24
B-6(mg)					0.25 ;3;2/24
B-multi					
Cu(mg)		5.93e-03 ;0.16;1/27			0.035 ;0.1;13/24
D-3(iu)					
Iodine(mg)[(a)]					3.96e-03 ;0.05;3/24
K1(mg)					
K2(mg)					0.15 ;0.75;7/24
Mg(mg)					4.4 ;20;8/24

TABLE XIV: Part 1 of 3. Events Summary for Spicey from 2018-01-01 to 2021-10-05A summary of most dietary components and events for selected months between 2018-01-01and 2021-10-05. Format is average daily amount ;maximum; days given/ days in interval . Units are arbitrary except where noted. Any superscripts are defined as follows: **a)** SMVT substrate. Biotin, Pantothenate, Lipoic Acid, and Iodine known to compete..**c)** hamburger with varying fat percentages- 7,10,15,20, etc. .. **Tables have been spot checked and are believed accurate but software is being developed and debugged concurrently with manuscript preparation and values should not be assumed to be accurate.**

Name	2019-04 April	2019-05 May	2019-06 June	2019-07 July	2019-08 Aug
Mg					
Mn(mg)					
Se(mcg)					
Se(tsp)					
Zn(mg)					0.22 ;0.9;9/24
arginine(mg)		3 ;80;1/27			3.2 ;24;5/24
arginine[b]					
biotin(mg)[a]		0.03 ;0.8;1/27			0.14 ;0.5;10/24
d-serine					
folate(mg)					
histidinehcl(mg)					1.2 ;28;1/24
isoleucine(mg)					1.9 ;25;3/24
lecithin(lecu)					43 ;120;16/24
lecithin(mg)					
leucine(mg)		3.9 ;104;1/27			13 ;32;14/24
lipoicacid(mg)[a]					
lysine(mg)					
lysinehcl(mg)					17 ;32;16/24
methionine(mg)					1 ;15;2/24
pantothenate(mg)[a]					1.5 ;20;2/24
pantothenate					
phenylalanine(mg)					4.3 ;25;7/24
taurine(mg)		3 ;80;1/27			40 ;50;19/24
threonine(mg)		1.9 ;52;1/27			9.2 ;32;11/24
tryptophan(mg)		1.2 ;32;1/27			5.9 ;20;10/24
tryptophan(tsp)					
tyrosine(mg)					1 ;25;1/24
tyrosine					
valine(mg)					9 ;40;9/24
vitamina(iu)					
vitaminc(mg)					
zn(mg zn)					
MEDICINE					
Ivermectin					
SnAg					
Temaril-P					
bor-l-immune					
cerenia					
clindamycin					
sentinelspectrum					
swings					
thgland(capsule)					
thgland(mg)					
thgland(tsp)					
RESULT					
cough					
photo					
vomit					
weight(kg)					

TABLE XV: Part 2 of 3. Events Summary for Spicey from 2018-01-01 to 2021-10-05A summary of most dietary components and events for selected months between 2018-01-01and 2021-10-05. Format is average daily amount ;maximum; days given/ days in interval . Units are arbitrary except where noted. Any superscripts are defined as follows: **a)** SMVT substrate. Biotin, Pantothenate, Lipoic Acid, and Iodine known to compete..**c)** hamburger with varying fat percentages- 7,10,15,20, etc. .. **Tables have been spot checked and are believed accurate but software is being developed and debugged concurrently with manuscript preparation and values should not be assumed to be accurate.**

Name	2019-04 April	2019-05 May	2019-06 June	2019-07 July	2019-08 Aug
11KC					
B-3					
BBP					
HeartGard				0.043 ;1;1/23	
KibbleAmJrLaPo					
KibbleDiamond					
Misccanned					
Miscкibble					
SolidGold					
TunaWPA					
bssngnc					
goatmilk					
heartgard					0.042 ;1;1/24
heartworm					
koil					
lacnesis					
vibactra					
worm					
yeggo3					

TABLE XVI: Part 3 of 3. Events Summary for Spicey from 2018-01-01 to 2021-10-05A summary of most dietary components and events for selected months between 2018-01-01and 2021-10-05. Format is average daily amount ;maximum; days given/ days in interval . Units are arbitrary except where noted. Any superscripts are defined as follows: **a)** SMVT substrate. Biotin, Pantothenate, Lipoic Acid, and Iodine known to compete..**c)** hamburger with varying fat percentages- 7,10,15,20, etc. .. **Tables have been spot checked and are believed accurate but software is being developed and debugged concurrently with manuscript preparation and values should not be assumed to be accurate.**

Name	2019-09 Sept	2019-10 Oct	2019-11 Nov	2019-12 Dec	2020-01 Jan
FOOD					
KCl(tsp kcl)	0.023 ;0.016;8/8	0.02 ;0.016;12/13	0.017 ;0.016;13/13	0.015 ;0.01;20/20	0.011 ;0.016;11/12
KibbleLogic					
aimeal					
b10ngnc[c]	0.047 ;0.062;4/8			3.13e-03 ;0.031;2/20	0.04 ;0.062;5/12
b15ngnc[c]		0.014 ;0.062;3/13			
b20ngnc[c]	0.023 ;0.062;2/8	0.054 ;0.062;8/13	0.046 ;0.062;10/13	0.052 ;0.04;19/20	0.029 ;0.062;4/12
b25ngnc					
b7ngnc[c]	0.023 ;0.062;2/8	0.019 ;0.062;2/13	0.021 ;0.062;6/13	4.69e-03 ;0.031;3/20	0.018 ;0.062;3/12
b9ngnc					
canned		0.46 ;1;4/13			
carrot	0.094 ;0.062;8/8	0.088 ;0.062;12/13	0.067 ;0.062;13/13	0.06 ;0.04;20/20	0.087 ;0.062;12/12
cbbrothbs			0.017 ;0.033;5/13		
cbbroth					
citrate(tsp citrate)	0.023 ;0.016;8/8	0.02 ;0.016;12/13	0.017 ;0.016;13/13	0.015 ;0.01;20/20	0.011 ;0.016;11/12
clbrothbs		2.31e-03 ;0.03;1/13			5.21e-03 ;0.062;1/12
colostrum(tsp)					
cooked					
ctbrothbs	0.094 ;0.062;8/8	0.085 ;0.062;12/13	0.046 ;0.062;9/13	0.06 ;0.04;20/20	0.063 ;0.062;12/12
ctbrothb					
ctbroths					
ctbroth					
ctskinbs					
ctskinb					
eggo3	0.023 ;0.031;6/8	0.03 ;0.031;11/13	0.025 ;0.031;12/13	0.016 ;0.018;19/20	0.031 ;0.031;10/12
flour					
garlic		0.035 ;0.062;7/13	2.40e-03 ;0.031;1/13	0.034 ;0.04;20/20	0.026 ;0.062;5/12
habanero					
jalapeno					
oliveoil(tsp)					
oliveoil	0.039 ;0.062;5/8	9.62e-03 ;0.062;2/13	0.024 ;0.062;7/13	0.01 ;0.031;7/20	0.042 ;0.062;6/12
p20ngnc					
salmon			0.084 ;1;2/13		0.13 ;1;6/12
shrimp(grams)	1.7 ;2.8;6/8	1.7 ;4.5;8/13	0.69 ;2.5;4/13	1.3 ;1.6;19/20	1.2 ;2.5;6/12
spinach					
tuna(oz)					
VITAMIN					
B-1(mg)					
B-100(count)	0.039 ;0.062;5/8	0.017 ;0.062;4/13	0.011 ;0.062;3/13	8.81e-03 ;0.031;6/20	0.012 ;0.062;3/12
B-12(mg)					
B-2(mg)					
B-3(mg)	0.78 ;6.2;1/8	3.4 ;6.2;7/13	0.96 ;3.1;4/13	1.4 ;4;9/20	2.9 ;6.2;6/12
B-6(mg)		2 ;6.2;5/13	0.48 ;3.1;2/13	0.47 ;3.1;3/20	
B-multi					
Cu(mg)	0.047 ;0.12;3/8	0.12 ;0.31;11/13	0.044 ;0.25;4/13	0.073 ;0.16;11/20	0.081 ;0.31;5/12
D-3(iu)					
Iodine(mg)[a]	7.81e-03 ;0.062;1/8	0.011 ;0.062;3/13	9.13e-03 ;0.062;3/13	9.75e-03 ;0.04;6/20	0.017 ;0.062;4/12
K1(mg)					
K2(mg)	0.47 ;0.94;4/8	0.47 ;0.94;7/13	0.31 ;0.94;6/13	0.17 ;0.47;8/20	0.26 ;0.94;4/12
Mg(mg)	13 ;25;4/8	4.8 ;25;3/13	7 ;25;5/13	12 ;25;17/20	14 ;25;7/12

TABLE XVII: Part 1 of 3. Events Summary for Spicey from 2018-01-01 to 2021-10-05A summary of most dietary components and events for selected months between 2018-01-01and 2021-10-05. Format is average daily amount ;maximum; days given/ days in interval . Units are arbitrary except where noted. Any superscripts are defined as follows: **a)** SMVT substrate. Biotin, Pantothenate, Lipoic Acid, and Iodine known to compete..**c)** hamburger with varying fat percentages- 7,10,15,20, etc. .. **Tables have been spot checked and are believed accurate but software is being developed and debugged concurrently with manuscript preparation and values should not be assumed to be accurate.**

Name	2019-09 Sept	2019-10 Oct	2019-11 Nov	2019-12 Dec	2020-01 Jan
Mg					1.1 ;13;1/12
Mn(mg)			0.077 ;0.5;3/13	0.012 ;0.24;1/20	0.033 ;0.4;1/12
Se(mcg)					
Se(tsp)					
Zn(mg)	1.1 ;1.5;6/8	0.73 ;1.5;7/13	0.77 ;1.5;10/13	0.41 ;0.78;11/20	1.2 ;1.6;9/12
arginine(mg)	6.2 ;25;2/8	12 ;50;4/13	12 ;50;5/13	18 ;25;14/20	17 ;50;4/12
arginine$^{(b)}$					
biotin(mg)$^{(a)}$	0.47 ;0.62;6/8	0.39 ;1.2;8/13	0.62 ;1.2;11/13	0.4 ;0.62;17/20	0.56 ;0.62;11/12
d-serine					
folate(mg)					
histidinehcl(mg)	10 ;41;2/8	14 ;41;5/13	5.6 ;32;3/13	7.1 ;20;7/20	6.1 ;41;2/12
isoleucine(mg)	7.8 ;31;2/8	9.6 ;31;4/13	12 ;50;5/13	9.3 ;31;11/20	18 ;50;6/12
lecithin(lecu)	112 ;75;8/8	105 ;75;12/13	80 ;75;13/13	72 ;48;20/20	90 ;75;12/12
lecithin(mg)					
leucine(mg)	30 ;41;6/8	22 ;41;9/13	18 ;41;9/13	15 ;24;16/20	23 ;41;8/12
lipoicacid(mg)$^{(a)}$					
lysine(mg)					
lysinehcl(mg)	41 ;41;7/8	40 ;41;11/13	37 ;42;12/13	47 ;61;19/20	75 ;81;11/12
methionine(mg)	3.9 ;16;2/8	9.5 ;31;5/13	9.9 ;31;6/13	7.8 ;16;10/20	13 ;31;6/12
pantothenate(mg)$^{(a)}$	3.9 ;31;1/8	17 ;31;8/13	15 ;31;10/13	8.1 ;16;11/20	7.3 ;31;3/12
pantothenate					
phenylalanine(mg)	12 ;31;3/8	9.8 ;31;5/13	6.7 ;25;5/13	7.2 ;20;9/20	9.9 ;31;4/12
taurine(mg)	86 ;62;7/8	80 ;62;12/13	60 ;56;13/13	54 ;36;20/20	79 ;56;12/12
threonine(mg)	25 ;41;5/8	42 ;81;11/13	39 ;42;11/13	64 ;48;20/20	104 ;81;12/12
tryptophan(mg)	19 ;25;6/8	26 ;50;10/13	27 ;40;11/13	17 ;25;17/20	27 ;50;10/12
tryptophan(tsp)					
tyrosine(mg)	7.8 ;31;2/8	2.4 ;31;1/13		0.78 ;16;1/20	
tyrosine					
valine(mg)	19 ;52;4/8	24 ;53;7/13	15 ;50;6/13	10 ;25;8/20	11 ;40;4/12
vitamina(iu)		20 ;260;1/13	265 ;438;12/13	291 ;438;18/20	385 ;562;9/12
vitaminc(mg)					
zn(mg zn)					
MEDICINE					
Ivermectin					
SnAg					
Temaril-P					
bor-l-immune					
cerenia					
clindamycin					
sentinelspectrum					
swings					
thgland(capsule)					
thgland(mg)					
thgland(tsp)					
RESULT					
cough					
photo					
vomit					
weight(kg)					

TABLE XVIII: Part 2 of 3. Events Summary for Spicey from 2018-01-01 to 2021-10-05A summary of most dietary components and events for selected months between 2018-01-01and 2021-10-05. Format is average daily amount ;maximum; days given/ days in interval . Units are arbitrary except where noted. Any superscripts are defined as follows: **a)** SMVT substrate. Biotin, Pantothenate, Lipoic Acid, and Iodine known to compete..**c)** hamburger with varying fat percentages- 7,10,15,20, etc. .. **Tables have been spot checked and are believed accurate but software is being developed and debugged concurrently with manuscript preparation and values should not be assumed to be accurate.**

Name	2019-09 Sept	2019-10 Oct	2019-11 Nov	2019-12 Dec	2020-01 Jan
11KC					
B-3					
BBP					
HeartGard					
KibbleAmJrLaPo					
KibbleDiamond					
Misccanned					
Misckibble					
SolidGold					
TunaWPA	6.25e-03 ;0.05;1/8				
bssngnc					
goatmilk					
heartgard					
heartworm					
koil					
lacnesis					
vibactra					
worm					
yeggo3					

TABLE XIX: Part 3 of 3. Events Summary for Spicey from 2018-01-01 to 2021-10-05A summary of most dietary components and events for selected months between 2018-01-01and 2021-10-05. Format is average daily amount ;maximum; days given/ days in interval . Units are arbitrary except where noted. Any superscripts are defined as follows: **a)** SMVT substrate. Biotin, Pantothenate, Lipoic Acid, and Iodine known to compete..**c)** hamburger with varying fat percentages- 7,10,15,20, etc. .. **Tables have been spot checked and are believed accurate but software is being developed and debugged concurrently with manuscript preparation and values should not be assumed to be accurate.**

Name	2020-02 Feb	2020-03 March	2020-04 April	2020-05 May	2020-06 June
FOOD					
KCl(tsp kcl)	0.014 ;0.013;14/14	0.026 ;0.02;31/31	0.031 ;0.016;30/30	0.03 ;0.02;17/17	0.029 ;0.016;17/17
KibbleLogic					
aimeal					
b10ngnc[(c)]	8.57e-03 ;0.03;4/14		0.033 ;0.062;15/30	0.026 ;0.062;5/17	
b15ngnc[(c)]	8.57e-03 ;0.05;3/14	0.012 ;0.05;7/31	0.01 ;0.062;5/30	0.034 ;0.08;7/17	
b20ngnc[(c)]	0.036 ;0.05;9/14	0.054 ;0.08;20/31	0.035 ;0.062;13/30	0.018 ;0.062;5/17	0.013 ;0.062;4/17
b25ngnc		4.03e-03 ;0.062;2/31			
b7ngnc[(c)]	7.14e-04 ;0.01;1/14	0.035 ;0.062;14/31	0.044 ;0.062;14/30	0.043 ;0.062;9/17	0.1 ;0.062;17/17
b9ngnc	2.14e-03 ;0.03;1/14		4.17e-03 ;0.062;2/30		
canned			0.01 ;0.2;2/30		
carrot	0.056 ;0.05;14/14	0.11 ;0.08;31/31	0.12 ;0.062;30/30	0.12 ;0.08;17/17	0.11 ;0.062;17/17
cbbrothbs					
cbbroth					
citrate(tsp citrate)	0.014 ;0.013;14/14	0.026 ;0.02;31/31	0.031 ;0.016;30/30	0.03 ;0.02;17/17	0.029 ;0.016;17/17
clbrothbs					
colostrum(tsp)					
cooked					
ctbrothbs	0.05 ;0.05;12/14	0.087 ;0.08;29/31	0.12 ;0.062;30/30	0.18 ;1;17/17	0.11 ;0.062;17/17
ctbrothb		0.011 ;0.05;5/31			
ctbroths					
ctbroth					
ctskinbs					
ctskinb					
eggo3	0.013 ;0.025;12/14	0.03 ;0.04;31/31	0.032 ;0.031;30/30	0.029 ;0.04;16/17	0.046 ;0.031;16/17
flour					
garlic	0.019 ;0.05;7/14	0.082 ;0.08;28/31	0.11 ;0.062;30/30	0.08 ;0.08;16/17	0.062 ;0.062;14/17
habanero					
jalapeno					
oliveoil(tsp)					
oliveoil	5.57e-03 ;0.03;5/14	0.014 ;0.05;8/31	0.019 ;0.062;8/30	0.01 ;0.062;3/17	7.35e-03 ;0.062;2/17
p20ngnc					
salmon	0.013 ;0.03;8/14	0.046 ;1;9/31	0.077 ;1;4/30	0.069 ;1;5/17	0.075 ;1;8/17
shrimp(grams)	1.2 ;2;13/14	1.3 ;2.5;24/31	1.8 ;2.5;25/30	1.5 ;2.5;12/17	0.73 ;2.5;6/17
spinach	7.14e-04 ;0.01;1/14		0.039 ;0.062;10/30	0.021 ;0.062;3/17	
tuna(oz)					
VITAMIN					
B-1(mg)		1.9 ;6.2;13/31	2 ;6.2;10/30	1.8 ;6.2;5/17	1.5 ;6.2;4/17
B-100(count)	3.57e-03 ;0.03;2/14	9.76e-03 ;0.062;6/31	1.00e-02 ;0.062;5/30	0.01 ;0.062;3/17	0.018 ;0.062;5/17
B-12(mg)					
B-2(mg)					
B-3(mg)	0.57 ;5;2/14	1.2 ;6.2;7/31	1.4 ;6.2;7/30	1.6 ;8;4/17	1.8 ;6.2;6/17
B-6(mg)					
B-multi					
Cu(mg)	0.11 ;0.25;11/14	0.22 ;0.4;27/31	0.17 ;0.31;16/30	0.22 ;0.31;12/17	0.22 ;0.31;12/17
D-3(iu)					
Iodine(mg)[(a)]	6.79e-03 ;0.05;3/14	0.017 ;0.062;10/31	0.019 ;0.062;9/30	0.015 ;0.062;4/17	0.029 ;0.062;8/17
K1(mg)					0.14 ;0.44;8/17
K2(mg)	0.11 ;0.45;4/14	0.35 ;1.2;13/31	0.26 ;0.94;9/30	0.46 ;1.2;8/17	0.17 ;0.94;3/17
Mg(mg)	7.9 ;20;8/14	11 ;40;15/31	12 ;25;14/30	15 ;32;10/17	8.9 ;25;6/17

TABLE XX: Part 1 of 3. Events Summary for Spicey from 2018-01-01 to 2021-10-05A summary of most dietary components and events for selected months between 2018-01-01and 2021-10-05. Format is average daily amount ;maximum; days given/ days in interval . Units are arbitrary except where noted. Any superscripts are defined as follows: **a)** SMVT substrate. Biotin, Pantothenate, Lipoic Acid, and Iodine known to compete..**c)** hamburger with varying fat percentages- 7,10,15,20, etc. .. **Tables have been spot checked and are believed accurate but software is being developed and debugged concurrently with manuscript preparation and values should not be assumed to be accurate.**

Name	2020-02 Feb	2020-03 March	2020-04 April	2020-05 May	2020-06 June
Mg					
Mn(mg)	0.063 ;0.4;3/14	0.094 ;0.5;7/31	0.092 ;0.5;6/30	0.082 ;0.5;3/17	0.055 ;0.5;2/17
Se(mcg)					
Se(tsp)					
Zn(mg)	0.12 ;0.6;4/14	0.36 ;1;16/31	0.48 ;1.2;15/30	0.45 ;1.6;6/17	1.1 ;1.9;13/17
arginine(mg)	8.6 ;40;5/14	13 ;50;9/31	35 ;75;20/30	12 ;50;4/17	5.9 ;50;2/17
arginine[b]					
biotin(mg)[a]	0.32 ;0.5;14/14	0.45 ;0.8;26/31	0.42 ;0.62;20/30	0.47 ;0.62;13/17	0.44 ;0.62;12/17
d-serine					
folate(mg)					
histidinehcl(mg)	3.5 ;32;2/14	7.6 ;41;7/31	11 ;41;8/30	9.1 ;41;4/17	7.2 ;41;3/17
isoleucine(mg)	5.1 ;20;4/14	13 ;50;10/31	20 ;50;12/30	21 ;50;7/17	14 ;50;5/17
lecithin(lecu)	67 ;60;14/14	127 ;96;31/31	159 ;240;30/30	140 ;96;17/17	141 ;75;17/17
lecithin(mg)					
leucine(mg)	13 ;32;9/14	33 ;52;26/31	39 ;41;28/30	36 ;52;14/17	36 ;41;14/17
lipoicacid(mg)[a]		0.14 ;1.2;4/31	0.89 ;4.8;7/30	1.2 ;6.2;4/17	0.92 ;6.2;4/17
lysine(mg)					
lysinehcl(mg)	53 ;65;14/14	117 ;104;31/31	108 ;81;30/30	135 ;104;17/17	143 ;81;17/17
methionine(mg)	5.7 ;25;4/14	8.8 ;40;10/31	8.3 ;31;8/30	9.2 ;31;5/17	7.4 ;31;4/17
pantothenate(mg)[a]	11 ;25;9/14	18 ;40;20/31	19 ;31;18/30	22 ;40;12/17	16 ;31;9/17
pantothenate					
phenylalanine(mg)	1.4 ;15;2/14	9.7 ;31;11/31	11 ;31;11/30	8.8 ;31;5/17	7.4 ;31;4/17
taurine(mg)	50 ;45;14/14	95 ;72;31/31	113 ;56;30/30	108 ;72;17/17	96 ;56;17/17
threonine(mg)	69 ;65;14/14	135 ;104;31/31	114 ;81;28/30	74 ;81;17/17	79 ;81;17/17
tryptophan(mg)	7.4 ;20;7/14	17 ;32;22/31	20 ;25;24/30	19 ;32;12/17	31 ;25;15/17
tryptophan(tsp)					
tyrosine(mg)	1.1 ;15;1/14	0.81 ;25;1/31	17 ;40;18/30	24 ;31;16/17	22 ;25;11/17
tyrosine					
valine(mg)	15 ;40;9/14	27 ;64;18/31	32 ;50;18/30	32 ;50;11/17	29 ;50;10/17
vitamina(iu)			18 ;540;1/30	33 ;562;1/17	37 ;625;1/17
vitaminc(mg)					
zn(mg zn)					
MEDICINE					
Ivermectin					
SnAg					
Temaril-P					
bor-l-immune					
cerenia					
clindamycin					
sentinelspectrum					
swings					
thgland(capsule)					
thgland(mg)					
thgland(tsp)					
RESULT					
cough					
photo					
vomit					
weight(kg)					

TABLE XXI: Part 2 of 3. Events Summary for Spicey from 2018-01-01 to 2021-10-05A summary of most dietary components and events for selected months between 2018-01-01and 2021-10-05. Format is average daily amount ;maximum; days given/ days in interval . Units are arbitrary except where noted. Any superscripts are defined as follows: **a)** SMVT substrate. Biotin, Pantothenate, Lipoic Acid, and Iodine known to compete..**c)** hamburger with varying fat percentages- 7,10,15,20, etc. .. **Tables have been spot checked and are believed accurate but software is being developed and debugged concurrently with manuscript preparation and values should not be assumed to be accurate.**

Name	2020-02 Feb	2020-03 March	2020-04 April	2020-05 May	2020-06 June
11KC					
B-3					
BBP					
HeartGard					
KibbleAmJrLaPo					
KibbleDiamond					
Misccanned					
Misckibble					
SolidGold					
TunaWPA					
bssngnc		9.68e-03 ;0.05;5/31	4.17e-03 ;0.062;1/30		
goatmilk					
heartgard		0.032 ;1;1/31			
heartworm					
koil					
lacnesis					
vibactra					
worm					
yeggo3					

TABLE XXII: Part 3 of 3. Events Summary for Spicey from 2018-01-01 to 2021-10-05A summary of most dietary components and events for selected months between 2018-01-01and 2021-10-05. Format is average daily amount ;maximum; days given/ days in interval . Units are arbitrary except where noted. Any superscripts are defined as follows: **a)** SMVT substrate. Biotin, Pantothenate, Lipoic Acid, and Iodine known to compete..**c)** hamburger with varying fat percentages- 7,10,15,20, etc. .. **Tables have been spot checked and are believed accurate but software is being developed and debugged concurrently with manuscript preparation and values should not be assumed to be accurate.**

Name	2020-07 July	2020-08 Aug	2020-09 Sept	2020-10 Oct	2020-11 Nov
FOOD					
KCl(tsp kcl)	0.036 ;0.031;23/24	0.033 ;0.031;22/23	0.03 ;0.031;22/23	0.039 ;0.031;22/22	0.038 ;0.031;24/28
KibbleLogic					
aimeal					
b10ngnc[c]	0.027 ;0.12;5/24	0.034 ;0.15;4/23		0.16 ;1;9/22	0.079 ;0.25;7/28
b15ngnc[c]	0.049 ;0.25;6/24	5.43e-03 ;0.12;1/23	5.43e-03 ;0.12;1/23		
b20ngnc[c]			5.43e-03 ;0.12;1/23		
b25ngnc					
b7ngnc[c]	0.22 ;0.25;21/24	0.32 ;0.25;23/23	0.34 ;0.12;23/23	0.18 ;0.25;15/22	0.29 ;0.25;23/28
b9ngnc					
canned					
carrot	0.21 ;0.25;23/24	0.25 ;0.25;22/23	0.24 ;0.12;22/23	0.29 ;0.25;22/22	0.36 ;0.25;28/28
cbbrothbs					
cbbroth	0.052 ;0.25;2/24	0.051 ;0.2;4/23	0.3 ;0.12;22/23	0.43 ;1;22/22	0.37 ;0.25;28/28
citrate(tsp citrate)	0.047 ;0.031;24/24	0.05 ;0.031;23/23	0.046 ;0.031;23/23	0.039 ;0.031;22/22	0.046 ;0.031;28/28
clbrothbs					
colostrum(tsp)					
cooked					
ctbrothbs	0.23 ;0.25;23/24	0.33 ;0.25;23/23	0.05 ;0.12;5/23		
ctbrothb					
ctbroths					
ctbroth					
ctskinbs					
ctskinb					
eggo3	0.042 ;0.062;23/24	0.033 ;0.037;22/23	0.027 ;0.031;20/23	0.041 ;0.062;21/22	0.052 ;0.062;27/28
flour					
garlic	0.18 ;0.25;22/24	0.25 ;0.25;22/23	0.22 ;0.12;22/23	0.29 ;0.25;22/22	0.21 ;0.25;18/28
habanero					
jalapeno					
oliveoil(tsp)					
oliveoil	0.027 ;0.12;5/24	0.016 ;0.062;5/23	4.62e-03 ;0.031;3/23	1.42e-03 ;0.016;2/22	
p20ngnc					
salmon	0.059 ;1;10/24	0.078 ;1;9/23	0.05 ;0.12;8/23	0.07 ;1;5/22	
shrimp(grams)	1.7 ;3;18/24	1.6 ;3.7;21/23	1 ;1.2;18/23	2.2 ;4;18/22	2.5 ;4;24/28
spinach		0.049 ;0.25;5/23		0.099 ;0.25;10/22	0.33 ;0.25;27/28
tuna(oz)			4.08e-03 ;0.031;3/23	7.10e-03 ;0.062;4/22	0.015 ;0.12;4/28
VITAMIN					
B-1(mg)	1.8 ;12;6/24	3.3 ;12;7/23	2.4 ;12;6/23	3.2 ;25;4/22	1.9 ;15;4/28
B-100(count)	0.012 ;0.12;4/24	7.23e-03 ;0.062;3/23	0.014 ;0.062;5/23	0.014 ;0.05;6/22	0.014 ;0.083;5/28
B-12(mg)				0.018 ;0.15;2/22	0.032 ;0.25;6/28
B-2(mg)					
B-3(mg)	3.6 ;8.8;17/24	5.9 ;8.8;22/23	7.8 ;4.4;21/23	6.4 ;8.8;18/22	1.7 ;8.8;8/28
B-6(mg)					
B-multi					
Cu(mg)	0.21 ;0.5;15/24	0.48 ;1;17/23	0.32 ;3.1;12/23	0.42 ;2;18/22	0.21 ;0.62;13/28
D-3(iu)				11 ;62;6/22	24 ;100;13/28
Iodine(mg)[a]	0.019 ;0.12;6/24	0.035 ;0.12;8/23	0.027 ;0.12;5/23	0.051 ;0.2;7/22	0.016 ;0.15;3/28
K1(mg)	0.81 ;2;22/24	0.76 ;2;14/23	0.28 ;1;7/23	0.42 ;2;8/22	0.27 ;2;5/28
K2(mg)	0.77 ;3.8;12/24	0.9 ;1.9;11/23	0.65 ;1.9;8/23	0.77 ;2.6;8/22	0.75 ;3.8;8/28
Mg(mg)	12 ;50;12/24	25 ;100;16/23	17 ;50;15/23	22 ;50;15/22	20 ;80;16/28

TABLE XXIII: Part 1 of 3. Events Summary for Spicey from 2018-01-01 to 2021-10-05A summary of most dietary components and events for selected months between 2018-01-01and 2021-10-05. Format is average daily amount ;maximum; days given/ days in interval . Units are arbitrary except where noted. Any superscripts are defined as follows: **a)** SMVT substrate. Biotin, Pantothenate, Lipoic Acid, and Iodine known to compete..**c)** hamburger with varying fat percentages- 7,10,15,20, etc. .. **Tables have been spot checked and are believed accurate but software is being developed and debugged concurrently with manuscript preparation and values should not be assumed to be accurate.**

Name	2020-07 July	2020-08 Aug	2020-09 Sept	2020-10 Oct	2020-11 Nov
Mg					
Mn(mg)	0.042 ;0.5;2/24	0.033 ;0.5;1/23	0.011 ;0.25;1/23	0.018 ;0.4;1/22	
Se(mcg)					
Se(tsp)					
Zn(mg)	1 ;3;14/24	0.59 ;1.5;9/23	0.54 ;1.5;9/23	0.61 ;2.2;8/22	0.81 ;3;10/28
arginine(mg)	55 ;100;23/24	85 ;200;23/23	57 ;100;22/23	78 ;160;19/22	28 ;100;12/28
arginine$^{(b)}$					
biotin(mg)$^{(a)}$	0.8 ;2.5;20/24	0.98 ;2.5;17/23	0.98 ;1.2;19/23	0.98 ;2;16/22	1.1 ;2.5;18/28
d-serine					
folate(mg)					
histidinehcl(mg)	14 ;88;7/24	1.9 ;44;1/23	4.8 ;40;3/23	7.7 ;42;6/22	5.5 ;80;3/28
isoleucine(mg)	30 ;100;13/24	20 ;60;9/23	15 ;50;7/23	14 ;100;5/22	9.3 ;80;4/28
lecithin(lecu)	339 ;300;24/24	477 ;300;23/23	450 ;300;23/23	274 ;300;22/22	407 ;300;28/28
lecithin(mg)					
leucine(mg)	59 ;88;24/24	56 ;81;20/23	42 ;81;18/23	54 ;88;19/22	63 ;85;25/28
lipoicacid(mg)$^{(a)}$	0.68 ;6.2;5/24	0.47 ;1.9;7/23	0.38 ;3.1;3/23	0.73 ;6.2;4/22	0.64 ;3.8;5/28
lysine(mg)					
lysinehcl(mg)	261 ;650;24/24	281 ;812;23/23	226 ;162;23/23	158 ;162;22/22	249 ;975;28/28
methionine(mg)	11 ;62;7/24	6.8 ;32;7/23	2.7 ;16;4/23	8.2 ;62;6/22	12 ;62;8/28
pantothenate(mg)$^{(a)}$	49 ;75;23/24	49 ;62;22/23	52 ;62;22/23	30 ;62;17/22	60 ;125;22/28
pantothenate					
phenylalanine(mg)	23 ;64;9/24	48 ;64;18/23	19 ;156;17/23	22 ;50;14/22	28 ;62;19/28
taurine(mg)	145 ;125;24/24	171 ;112;23/23	161 ;112;23/23	176 ;900;22/22	165 ;112;28/28
threonine(mg)	100 ;162;24/24	81 ;98;23/23	118 ;812;23/23	102 ;162;22/22	124 ;162;27/28
tryptophan(mg)	68 ;50;24/24	62 ;50;21/23	66 ;50;23/23	55 ;50;21/22	53 ;50;27/28
tryptophan(tsp)					
tyrosine(mg)	55 ;50;24/24	44 ;50;20/23	50 ;50;23/23	33 ;50;22/22	31 ;50;22/28
tyrosine					
valine(mg)	50 ;100;21/24	61 ;100;19/23	36 ;100;15/23	32 ;100;12/22	38 ;100;17/28
vitamina(iu)	87 ;562;4/24	27 ;375;2/23	8.2 ;188;1/23	64 ;500;4/22	141 ;625;8/28
vitaminc(mg)					5.1 ;18;11/28
zn(mg zn)					
MEDICINE					
Ivermectin					
SnAg			2.72e-03 ;0.062;1/23	0.14 ;1;3/22	
Temaril-P					
bor-l-immune					
cerenia					
clindamycin					
sentinelspectrum					
swings					
thgland(capsule)					
thgland(mg)					
thgland(tsp)					
RESULT					
cough					
photo					
vomit					
weight(kg)					

TABLE XXIV: Part 2 of 3. Events Summary for Spicey from 2018-01-01 to 2021-10-05A summary of most dietary components and events for selected months between 2018-01-01and 2021-10-05. Format is average daily amount ;maximum; days given/ days in interval . Units are arbitrary except where noted. Any superscripts are defined as follows: **a)** SMVT substrate. Biotin, Pantothenate, Lipoic Acid, and Iodine known to compete..**c)** hamburger with varying fat percentages- 7,10,15,20, etc. .. **Tables have been spot checked and are believed accurate but software is being developed and debugged concurrently with manuscript preparation and values should not be assumed to be accurate.**

Name	2020-07 July	2020-08 Aug	2020-09 Sept	2020-10 Oct	2020-11 Nov
11KC					
B-3					
BBP					
HeartGard					
KibbleAmJrLaPo					
KibbleDiamond					
Misccanned					
Misckibble					
SolidGold					
TunaWPA					
bssngnc					
goatmilk					
heartgard				0.045 ;1;1/22	
heartworm		0.043 ;1;1/23			
koil					
lacnesis					
vibactra					
worm					
yeggo3					

TABLE XXV: Part 3 of 3. Events Summary for Spicey from 2018-01-01 to 2021-10-05A summary of most dietary components and events for selected months between 2018-01-01and 2021-10-05. Format is average daily amount ;maximum; days given/ days in interval . Units are arbitrary except where noted. Any superscripts are defined as follows: **a)** SMVT substrate. Biotin, Pantothenate, Lipoic Acid, and Iodine known to compete..**c)** hamburger with varying fat percentages- 7,10,15,20, etc. .. **Tables have been spot checked and are believed accurate but software is being developed and debugged concurrently with manuscript preparation and values should not be assumed to be accurate.**

Name	2020-12 Dec	2021-01 Jan	2021-02 Feb	2021-03 March	2021-04 April
FOOD					
KCl(tsp kcl)	0.061 ;0.062;22/22	0.11 ;0.12;31/31	0.11 ;0.031;21/21	0.097 ;0.062;25/25	0.07 ;0.032;30/30
KibbleLogic					
aimeal	1 ;1;10/22	2.6 ;1;31/31	1.4 ;1;12/21	0.04 ;1;1/25	
b10ngnc[(c)]	0.14 ;1;1/22	0.27 ;1;6/31	1.1 ;1;10/21	1 ;1;11/25	1.4 ;1;15/30
b15ngnc[(c)]			0.051 ;1;1/21	0.13 ;1;3/25	
b20ngnc[(c)]	0.04 ;0.25;3/22		0.048 ;1;1/21		
b25ngnc					
b7ngnc[(c)]	0.49 ;1;15/22	2.1 ;1;31/31	1.7 ;1;16/21	1.6 ;1;17/25	1.4 ;1;18/30
b9ngnc					
canned					
carrot	0.58 ;1;17/22	1.1 ;1;27/31	2.2 ;1;21/21	1.9 ;1;25/25	2 ;1;30/30
cbbrothbs					
cbbroth	0.53 ;1;16/22	2.7 ;1;31/31	2.2 ;1;21/21	0.86 ;1;16/25	2.5 ;1;30/30
citrate(tsp citrate)	0.056 ;0.062;20/22	0.042 ;0.12;26/31	0.068 ;0.031;21/21	0.053 ;0.062;25/25	0.07 ;0.032;30/30
clbrothbs					
colostrum(tsp)					
cooked					
ctbrothbs			0.76 ;1;6/21	2 ;1;24/25	0.22 ;1;5/30
ctbrothb					
ctbroths					
ctbroth		0.032 ;1;1/31			
ctskinbs					
ctskinb					
eggo3	0.065 ;0.12;16/22	0.02 ;0.031;19/31	0.024 ;0.05;14/21	0.043 ;0.05;19/25	0.059 ;0.15;30/30
flour					
garlic	0.091 ;1;3/22	0.61 ;1;10/31			0.87 ;1;9/30
habanero					
jalapeno					
oliveoil(tsp)	2.84e-03 ;0.031;2/22	4.03e-04 ;0.013;1/31			
oliveoil	1.42e-03 ;0.031;1/22				
p20ngnc					
salmon		0.22 ;1;4/31	0.13 ;1;5/21	0.1 ;1;3/25	0.37 ;1;8/30
shrimp(grams)	2.2 ;5;13/22	1.1 ;2.8;17/31	3.2 ;5;18/21	4.3 ;6.3;23/25	5.3 ;10;25/30
spinach	0.28 ;1;12/22	0.34 ;1;16/31	1.7 ;1;19/21	1.1 ;1;15/25	1.3 ;1;20/30
tuna(oz)	0.045 ;0.31;4/22	0.11 ;0.5;7/31	0.021 ;0.1;2/21	4.00e-03 ;0.1;1/25	0.018 ;0.12;3/30
VITAMIN					
B-1(mg)	2.5 ;15;4/22	3.7 ;20;5/31	2.3 ;25;3/21	0.8 ;20;1/25	1.7 ;50;1/30
B-100(count)	0.039 ;0.2;6/22	0.077 ;0.25;9/31	0.1 ;0.25;7/21	0.071 ;0.25;7/25	0.041 ;0.25;6/30
B-12(mg)	0.034 ;0.25;3/22	0.055 ;0.5;4/31	0.038 ;0.5;3/21	0.02 ;0.25;3/25	0.017 ;0.25;2/30
B-2(mg)					
B-3(mg)	5.2 ;20;9/22	13 ;35;17/31	19 ;35;11/21	7 ;35;5/25	10 ;35;9/30
B-6(mg)					
B-multi					
Cu(mg)	0.27 ;1;9/22	0.65 ;1;19/31	0.79 ;3;10/21	0.5 ;1;12/25	0.49 ;1;15/30
D-3(iu)	26 ;100;8/22	69 ;200;12/31	83 ;150;10/21	66 ;150;12/25	61 ;250;12/30
Iodine(mg)[(a)]	0.021 ;0.15;5/22	6.05e-04 ;0.019;1/31	5.71e-03 ;0.019;8/21	0.037 ;0.25;12/25	0.025 ;0.25;3/30
K1(mg)	1.4 ;2.5;13/22	2.5 ;2.5;26/31	2.5 ;2.5;18/21	4 ;2.5;25/25	4 ;2.5;29/30
K2(mg)	0.85 ;3.8;5/22	1.3 ;5;7/31	1.7 ;7.5;6/21	1.6 ;7.5;6/25	0.75 ;7.5;4/30
Mg(mg)	44 ;100;19/22	47 ;50;21/31	64 ;50;19/21	55 ;50;25/25	48 ;100;28/30

TABLE XXVI: Part 1 of 3. Events Summary for Spicey from 2018-01-01 to 2021-10-05A summary of most dietary components and events for selected months between 2018-01-01and 2021-10-05. Format is average daily amount ;maximum; days given/ days in interval . Units are arbitrary except where noted. Any superscripts are defined as follows: **a)** SMVT substrate. Biotin, Pantothenate, Lipoic Acid, and Iodine known to compete..**c)** hamburger with varying fat percentages- 7,10,15,20, etc. .. **Tables have been spot checked and are believed accurate but software is being developed and debugged concurrently with manuscript preparation and values should not be assumed to be accurate.**

Name	2020-12 Dec	2021-01 Jan	2021-02 Feb	2021-03 March	2021-04 April
Mg					
Mn(mg)	0.011 ;0.25;1/22		5.95e-03 ;0.12;1/21		
Se(mcg)					
Se(tsp)					
Zn(mg)	1.4 ;5;8/22	0.4 ;5;2/31			
arginine(mg)	62 ;200;13/22	44 ;100;10/31	126 ;100;17/21	100 ;100;22/25	70 ;200;19/30
arginine[b]					
biotin(mg)[a]	1.8 ;10;12/22	0.91 ;2.5;16/31	1.7 ;5;10/21	2.2 ;5;13/25	2.8 ;10;16/30
d-serine					
folate(mg)					
histidinehcl(mg)	51 ;800;6/22	138 ;165;31/31	124 ;80;20/21	149 ;80;25/25	128 ;80;30/30
isoleucine(mg)	22 ;81;6/22	27 ;100;8/31	42 ;100;7/21	22 ;100;5/25	26 ;100;8/30
lecithin(lecu)	458 ;300;22/22	1002 ;1200;31/31	1108 ;2400;21/21	1041 ;2400;25/25	59 ;300;2/30
lecithin(mg)					599 ;900;28/30
leucine(mg)	76 ;80;20/22	107 ;80;27/31	128 ;80;19/21	98 ;80;22/25	72 ;80;26/30
lipoicacid(mg)[a]	0.8 ;6.2;3/22	0.1 ;3.1;1/31	0.3 ;3.1;2/21	0.12 ;3.1;1/25	0.17 ;5;1/30
lysine(mg)					
lysinehcl(mg)	333 ;800;22/22	518 ;650;31/31	389 ;160;21/21	337 ;160;24/25	324 ;160;30/30
methionine(mg)	15 ;80;6/22	20 ;60;10/31	32 ;60;15/21	33 ;80;22/25	12 ;30;12/30
pantothenate(mg)[a]	33 ;125;11/22	46 ;100;21/31	46 ;100;14/21	37 ;50;18/25	45 ;50;26/30
pantothenate			2.4 ;50;1/21		
phenylalanine(mg)	57 ;120;19/22	290 ;6500;29/31	83 ;60;20/21	66 ;60;25/25	60 ;120;29/30
taurine(mg)	221 ;200;22/22	430 ;900;31/31	426 ;120;21/21	367 ;129;25/25	367 ;1200;30/30
threonine(mg)	143 ;162;20/22	213 ;650;31/31	215 ;160;20/21	161 ;160;23/25	260 ;160;30/30
tryptophan(mg)	48 ;50;21/22	97 ;200;31/31	103 ;50;20/21	98 ;50;25/25	87 ;60;30/30
tryptophan(tsp)					
tyrosine(mg)	57 ;100;22/22	101 ;100;31/31	113 ;50;21/21	101 ;50;25/25	81 ;50;30/30
tyrosine					
valine(mg)	68 ;200;14/22	121 ;400;24/31	138 ;100;19/21	126 ;100;23/25	73 ;100;21/30
vitamina(iu)	278 ;1000;7/22	739 ;2000;14/31	847 ;2500;9/21	1202 ;2500;12/25	1383 ;3000;15/30
vitaminc(mg)	7.9 ;20;12/22	15 ;30;14/31	13 ;30;7/21	7.3 ;30;6/25	8 ;30;8/30
zn(mg zn)		3.3 ;5.9;16/31	3.3 ;5.9;10/21	2.9 ;5.9;12/25	4.5 ;12;15/30
MEDICINE					
Ivermectin					0.033 ;1;1/30
SnAg	0.045 ;1;1/22		0.33 ;1;4/21		
Temaril-P					
bor-l-immune					
cerenia					
clindamycin					
sentinelspectrum					
swings	1.1 ;1;11/22	1.2 ;1;24/31	0.33 ;1;6/21	0.04 ;1;1/25	
thgland(capsule)					
thgland(mg)		3.1 ;30;9/31			
thgland(tsp)		0.05 ;1.1;14/31	0.063 ;0.025;21/21	0.048 ;0.025;25/25	0.052 ;0.031;30/30
RESULT					
cough					
photo	0.045 ;1;1/22				
vomit			0.048 ;1;1/21		
weight(kg)					

TABLE XXVII: Part 2 of 3. Events Summary for Spicey from 2018-01-01 to 2021-10-05A summary of most dietary components and events for selected months between 2018-01-01and 2021-10-05. Format is average daily amount ;maximum; days given/ days in interval . Units are arbitrary except where noted. Any superscripts are defined as follows: **a)** SMVT substrate. Biotin, Pantothenate, Lipoic Acid, and Iodine known to compete..**c)** hamburger with varying fat percentages- 7,10,15,20, etc. .. **Tables have been spot checked and are believed accurate but software is being developed and debugged concurrently with manuscript preparation and values should not be assumed to be accurate.**

Name	2020-12 Dec	2021-01 Jan	2021-02 Feb	2021-03 March	2021-04 April
11KC					
B-3					
BBP					
HeartGard					
KibbleAmJrLaPo					
KibbleDiamond					
Misccanned					
Misckibble					
SolidGold					
TunaWPA					
bssngnc					
goatmilk					
heartgard					
heartworm					
koil		1.6 ;1;16/31			
lacnesis	0.95 ;1;11/22	0.29 ;1;9/31			
vibactra	0.45 ;1;10/22	0.48 ;1;15/31			
worm					
yeggo3		1.29e-03 ;0.01;4/31	2.38e-03 ;0.05;1/21		

TABLE XXVIII: Part 3 of 3. Events Summary for Spicey from 2018-01-01 to 2021-10-05A summary of most dietary components and events for selected months between 2018-01-01and 2021-10-05. Format is average daily amount ;maximum; days given/ days in interval . Units are arbitrary except where noted. Any superscripts are defined as follows: **a)** SMVT substrate. Biotin, Pantothenate, Lipoic Acid, and Iodine known to compete..**c)** hamburger with varying fat percentages- 7,10,15,20, etc. .. **Tables have been spot checked and are believed accurate but software is being developed and debugged concurrently with manuscript preparation and values should not be assumed to be accurate.**

Name	2021-05 May	2021-06 June	2021-07 July	2021-08 Aug	2021-09 Sept
FOOD					
KCl(tsp kcl)	0.02 ;0.031;16/27	0.029 ;0.016;19/21	0.051 ;0.032;31/31	0.06 ;0.031;23/23	0.06 ;0.031;30/30
KibbleLogic					
aimeal					
b10ngnc[c]	0.018 ;0.062;6/27	0.56 ;1;5/21	0.58 ;1;12/31	0.87 ;1;11/23	0.47 ;1;8/30
b15ngnc[c]			0.036 ;1;1/31	0.43 ;1;6/23	0.067 ;1;1/30
b20ngnc[c]		0.19 ;1;2/21			0.53 ;1;9/30
b25ngnc					
b7ngnc[c]	0.67 ;1;10/27	1.43e-03 ;0.03;1/21	1.2 ;1;19/31	0.61 ;1;8/23	0.86 ;1;14/30
b9ngnc					
canned					
carrot	1.8 ;1;25/27	1.8 ;1;20/21	1.9 ;1;31/31	1.9 ;1;23/23	1.9 ;1;30/30
cbbrothbs					
cbbroth	0.76 ;1;17/27	2.3 ;1;19/21	2 ;1;31/31	1.9 ;1;23/23	2.3 ;1;30/30
citrate(tsp citrate)	0.021 ;0.031;17/27	0.029 ;0.016;19/21	0.051 ;0.032;31/31	0.06 ;0.031;23/23	0.06 ;0.031;30/30
clbrothbs					
colostrum(tsp)				8.70e-03 ;0.2;1/23	
cooked					
ctbrothbs		0.14 ;1;2/21			0.34 ;1;5/30
ctbrothb					
ctbroths					
ctbroth					
ctskinbs					
ctskinb					
eggo3	9.68e-03 ;0.05;8/27	8.63e-03 ;0.05;4/21	0.045 ;0.07;27/31	0.043 ;0.05;20/23	0.04 ;0.05;24/30
flour					
garlic	0.28 ;1;10/27	0.081 ;0.1;7/21	0.66 ;1;22/31	1.1 ;1;18/23	1 ;1;24/30
habanero					
jalapeno					
oliveoil(tsp)				0.026 ;0.062;6/23	0.08 ;0.12;20/30
oliveoil					
p20ngnc					
salmon	0.091 ;1;4/27		0.12 ;1;8/31		0.087 ;1;3/30
shrimp(grams)	7.3 ;10;26/27	1.7 ;10;8/21	3.2 ;16;28/31	6.4 ;10;23/23	8.1 ;10;30/30
spinach	1.7 ;1;25/27	1.8 ;1;20/21	1.9 ;1;31/31	1.9 ;1;23/23	1.9 ;1;30/30
tuna(oz)				0.022 ;0.1;3/23	0.027 ;0.1;7/30
VITAMIN					
B-1(mg)	6.9 ;50;6/27	4.3 ;40;3/21	6 ;40;5/31	3.9 ;40;2/23	6.7 ;50;4/30
B-100(count)	0.065 ;0.25;7/27				
B-12(mg)	0.039 ;0.5;3/27	0.06 ;0.5;3/21	0.4 ;1;22/31	0.61 ;1;14/23	0.36 ;1;12/30
B-2(mg)	21 ;50;13/27	15 ;25;13/21	4.5 ;50;4/31	23 ;50;8/23	37 ;50;20/30
B-3(mg)	25 ;35;16/27	28 ;35;17/21	15 ;35;13/31	15 ;35;10/23	15 ;35;13/30
B-6(mg)			1.3 ;25;2/31	1.1 ;25;1/23	1 ;30;1/30
B-multi	0.028 ;0.25;3/27	0.12 ;0.25;10/21	0.13 ;0.3;16/31	0.23 ;0.5;11/23	0.23 ;0.5;15/30
Cu(mg)	0.46 ;1;12/27	0.34 ;1;7/21	0.39 ;1;13/31	0.48 ;2;10/23	0.4 ;1;12/30
D-3(iu)	67 ;400;8/27	66 ;500;5/21	174 ;900;11/31	322 ;1000;9/23	188 ;800;8/30
Iodine(mg)[a]	0.027 ;0.25;3/27	0.024 ;0.25;2/21	0.099 ;0.5;9/31	0.26 ;0.5;12/23	0.13 ;0.5;8/30
K1(mg)	4 ;2.6;25/27	2.2 ;2.5;18/21	2.1 ;2.5;26/31	2.3 ;5;20/23	2.2 ;2.5;26/30
K2(mg)	0.79 ;7.5;3/27	0.36 ;7.5;1/21	0.73 ;7.5;3/31	0.98 ;7.5;3/23	0.68 ;7.5;3/30
Mg(mg)	53 ;50;26/27	43 ;50;18/21	45 ;50;27/31	43 ;50;20/23	23 ;50;14/30

TABLE XXIX: Part 1 of 3. Events Summary for Spicey from 2018-01-01 to 2021-10-05A summary of most dietary components and events for selected months between 2018-01-01and 2021-10-05. Format is average daily amount ;maximum; days given/ days in interval . Units are arbitrary except where noted. Any superscripts are defined as follows: **a)** SMVT substrate. Biotin, Pantothenate, Lipoic Acid, and Iodine known to compete..**c)** hamburger with varying fat percentages- 7,10,15,20, etc. .. **Tables have been spot checked and are believed accurate but software is being developed and debugged concurrently with manuscript preparation and values should not be assumed to be accurate.**

Name	2021-05 May	2021-06 June	2021-07 July	2021-08 Aug	2021-09 Sept
Mg					
Mn(mg)				0.043 ;1;1/23	0.23 ;1;7/30
Se(mcg)					0.67 ;20;1/30
Se(tsp)					5.21e-04 ;0.0078;1/30
Zn(mg)					
arginine(mg)	109 ;200;25/27	108 ;188;16/21	144 ;188;23/31	188 ;188;23/23	144 ;375;22/30
arginine[b]					
biotin(mg)[a]	2.4 ;10;12/27	3.3 ;10;13/21	2.6 ;5;16/31	2.2 ;5;10/23	4.8 ;10;18/30
d-serine					
folate(mg)	0.019 ;0.25;2/27	0.12 ;0.38;9/21	0.17 ;0.5;18/31	0.33 ;0.5;15/23	0.2 ;0.5;12/30
histidinehcl(mg)	128 ;80;25/27	41 ;80;11/21	38 ;170;14/31	88 ;170;19/23	267 ;170;27/30
isoleucine(mg)	35 ;100;9/27	37 ;100;7/21	23 ;100;7/31	25 ;100;6/23	23 ;100;7/30
lecithin(lecu)					
lecithin(mg)	652 ;225;27/27	529 ;225;20/21	467 ;900;31/31	460 ;900;23/23	435 ;225;30/30
leucine(mg)	74 ;80;22/27	76 ;80;16/21	74 ;80;24/31	73 ;80;21/23	64 ;80;24/30
lipoicacid(mg)[a]	0.78 ;6;4/27		7.1 ;15;19/31	7.2 ;15;16/23	6.8 ;15;20/30
lysine(mg)					
lysinehcl(mg)	322 ;600;26/27	251 ;160;20/21	212 ;162;29/31	285 ;240;23/23	340 ;160;29/30
methionine(mg)	17 ;30;14/27	11 ;30;8/21	11 ;30;9/31	104 ;60;22/23	42 ;60;21/30
pantothenate(mg)[a]	57 ;100;19/27	41 ;100;12/21	57 ;150;15/31	63 ;200;9/23	65 ;150;13/30
pantothenate					
phenylalanine(mg)	69 ;120;27/27	38 ;60;13/21	36 ;60;18/31	60 ;60;23/23	62 ;120;30/30
taurine(mg)	688 ;250;27/27	581 ;250;20/21	484 ;900;31/31	492 ;900;23/23	470 ;250;30/30
threonine(mg)	275 ;160;26/27	165 ;160;19/21	151 ;162;29/31	146 ;160;21/23	191 ;160;28/30
tryptophan(mg)	94 ;50;27/27	41 ;50;13/21	26 ;50;16/31	43 ;50;20/23	17 ;50;10/30
tryptophan(tsp)					0.016 ;0.062;15/30
tyrosine(mg)	103 ;100;27/27	40 ;60;13/21	42 ;50;22/31	93 ;100;23/23	98 ;100;30/30
tyrosine					
valine(mg)	78 ;200;18/27	70 ;100;15/21	60 ;100;18/31	57 ;100;13/23	63 ;100;19/30
vitamina(iu)	1479 ;3000;13/27	1286 ;3000;9/21	639 ;6000;5/31	522 ;6000;2/23	1300 ;6000;9/30
vitaminc(mg)	9.1 ;30;8/27	13 ;30;9/21	8.7 ;30;9/31	5.2 ;30;4/23	12 ;40;11/30
zn(mg zn)	5.7 ;12;13/27	4.2 ;12;8/21	1.7 ;5.9;9/31	2 ;5.9;7/23	2 ;12;8/30
MEDICINE					
Ivermectin		0.048 ;1;1/21		0.043 ;1;1/23	
SnAg					
Temaril-P					
bor-l-immune					
cerenia					
clindamycin					
sentinelspectrum					
swings	0.15 ;1;2/27				
thgland(capsule)	0.17 ;0.5;3/27	1.3 ;0.5;20/21	1.4 ;0.5;31/31	1.3 ;0.5;23/23	1.4 ;0.5;30/30
thgland(mg)					3.3 ;100;1/30
thgland(tsp)	0.095 ;0.062;24/27	0.024 ;0.5;1/21			
RESULT					
cough					0.23 ;1;5/30
photo					
vomit					
weight(kg)					

TABLE XXX: Part 2 of 3. Events Summary for Spicey from 2018-01-01 to 2021-10-05A summary of most dietary components and events for selected months between 2018-01-01and 2021-10-05. Format is average daily amount ;maximum; days given/ days in interval . Units are arbitrary except where noted. Any superscripts are defined as follows: **a)** SMVT substrate. Biotin, Pantothenate, Lipoic Acid, and Iodine known to compete..**c)** hamburger with varying fat percentages- 7,10,15,20, etc. .. **Tables have been spot checked and are believed accurate but software is being developed and debugged concurrently with manuscript preparation and values should not be assumed to be accurate.**

Name	2021-05 May	2021-06 June	2021-07 July	2021-08 Aug	2021-09 Sept
11KC					
B-3					
BBP					
HeartGard					
KibbleAmJrLaPo					
KibbleDiamond					
Misccanned					
Misckibble					
SolidGold					
TunaWPA					
bssngnc					
goatmilk					
heartgard					
heartworm					
koil					
lacnesis					
vibactra					
worm					
yeggo3					

TABLE XXXI: Part 3 of 3. Events Summary for Spicey from 2018-01-01 to 2021-10-05A summary of most dietary components and events for selected months between 2018-01-01and 2021-10-05. Format is average daily amount ;maximum; days given/ days in interval . Units are arbitrary except where noted. Any superscripts are defined as follows: **a)** SMVT substrate. Biotin, Pantothenate, Lipoic Acid, and Iodine known to compete..**c)** hamburger with varying fat percentages- 7,10,15,20, etc. .. **Tables have been spot checked and are believed accurate but software is being developed and debugged concurrently with manuscript preparation and values should not be assumed to be accurate.**

Name	2021-10 Oct
FOOD	
KCl(tsp kcl)	0.062 ;0.031;1/1
KibbleLogic	
aimeal	
b10ngnc[(c)]	
b15ngnc[(c)]	
b20ngnc[(c)]	2 ;1;1/1
b25ngnc	
b7ngnc[(c)]	
b9ngnc	
canned	
carrot	2 ;1;1/1
cbbrothbs	
cbbroth	0.2 ;0.1;1/1
citrate(tsp citrate)	0.062 ;0.031;1/1
clbrothbs	
colostrum(tsp)	
cooked	
ctbrothbs	1.8 ;0.9;1/1
ctbrothb	
ctbroths	
ctbroth	
ctskinbs	
ctskinb	
eggo3	
flour	
garlic	
habanero	
jalapeno	
oliveoil(tsp)	
oliveoil	
p20ngnc	
salmon	
shrimp(grams)	7 ;7;1/1
spinach	2 ;1;1/1
tuna(oz)	
VITAMIN	
B-1(mg)	
B-100(count)	
B-12(mg)	
B-2(mg)	
B-3(mg)	
B-6(mg)	
B-multi	0.4 ;0.4;1/1
Cu(mg)	
D-3(iu)	
Iodine(mg)[(a)]	
K1(mg)	2.5 ;2.5;1/1
K2(mg)	
Mg(mg)	50 ;50;1/1

TABLE XXXII: Part 1 of 3. Events Summary for Spicey from 2018-01-01 to 2021-10-05A summary of most dietary components and events for selected months between 2018-01-01and 2021-10-05. Format is average daily amount ;maximum; days given/ days in interval . Units are arbitrary except where noted. Any superscripts are defined as follows: **a)** SMVT substrate. Biotin, Pantothenate, Lipoic Acid, and Iodine known to compete..**c)** hamburger with varying fat percentages- 7,10,15,20, etc. .. **Tables have been spot checked and are believed accurate but software is being developed and debugged concurrently with manuscript preparation and values should not be assumed to be accurate.**

Name	2021-10 Oct
Mg	
Mn(mg)	
Se(mcg)	
Se(tsp)	
Zn(mg)	
arginine(mg)	188 ;188;1/1
arginine$^{(b)}$	
biotin(mg)$^{(a)}$	
d-serine	
folate(mg)	0.5 ;0.5;1/1
histidinehcl(mg)	340 ;170;1/1
isoleucine(mg)	
lecithin(lecu)	
lecithin(mg)	450 ;225;1/1
leucine(mg)	80 ;80;1/1
lipoicacid(mg)$^{(a)}$	10 ;10;1/1
lysine(mg)	
lysinehcl(mg)	160 ;160;1/1
methionine(mg)	
pantothenate(mg)$^{(a)}$	
pantothenate	
phenylalanine(mg)	60 ;60;1/1
taurine(mg)	480 ;240;1/1
threonine(mg)	160 ;160;1/1
tryptophan(mg)	
tryptophan(tsp)	0.016 ;0.016;1/1
tyrosine(mg)	50 ;50;1/1
tyrosine	
valine(mg)	100 ;100;1/1
vitamina(iu)	
vitaminc(mg)	
zn(mg zn)	12 ;12;1/1
MEDICINE	
Ivermectin	
SnAg	
Temaril-P	
bor-l-immune	
cerenia	
clindamycin	
sentinelspectrum	
swings	
thgland(capsule)	1 ;0.5;1/1
thgland(mg)	
thgland(tsp)	
RESULT	
cough	
photo	
vomit	
weight(kg)	

TABLE XXXIII: Part 2 of 3. Events Summary for Spicey from 2018-01-01 to 2021-10-05A summary of most dietary components and events for selected months between 2018-01-01and 2021-10-05. Format is average daily amount ;maximum; days given/ days in interval . Units are arbitrary except where noted. Any superscripts are defined as follows: **a)** SMVT substrate. Biotin, Pantothenate, Lipoic Acid, and Iodine known to compete..**c)** hamburger with varying fat percentages- 7,10,15,20, etc. .. **Tables have been spot checked and are believed accurate but software is being developed and debugged concurrently with manuscript preparation and values should not be assumed to be accurate.**

Name	2021-10 Oct
11KC	
B-3	
BBP	
HeartGard	
KibbleAmJrLaPo	
KibbleDiamond	
Misccanned	
Misckibble	
SolidGold	
TunaWPA	
bssngnc	
goatmilk	
heartgard	
heartworm	
koil	
lacnesis	
vibactra	
worm	
yeggo3	

TABLE XXXIV: Part 3 of 3. Events Summary for Spicey from 2018-01-01 to 2021-10-05A summary of most dietary components and events for selected months between 2018-01-01and 2021-10-05. Format is average daily amount ;maximum; days given/ days in interval . Units are arbitrary except where noted. Any superscripts are defined as follows: **a)** SMVT substrate. Biotin, Pantothenate, Lipoic Acid, and Iodine known to compete..**c)** hamburger with varying fat percentages- 7,10,15,20, etc. .. **Tables have been spot checked and are believed accurate but software is being developed and debugged concurrently with manuscript preparation and values should not be assumed to be accurate.**

Appendix C: Statement of Conflicts

No specific funding was used in this effort and there are no relationships with others that could create a conflict of interest. I would like to develop these ideas further and have obvious bias towards making them appear successful. Barbara Cade, the dog owner, has worked in the pet food industry but this does not likely create a conflict. We have no interest in the makers of any of the products named in this work.

Appendix D: About the Authors and Facility

This work was performed at a dog rescue run by Barbara Cade and housed in rural Georgia. The author of this report ,Mike Marchywka, has a background in electrical engineering and has done extensive research using free online literature sources. I hope to find additional people interested in critically examining the results and verify that they can be reproduced effectively to treat other dogs.

Appendix E: Symbols, Abbreviations and Colloquialisms

TERM	definition and meaning
dancing	Spicey running around anxious for dinner
steps	A short set of steps in the backyard that may be a challenge for smaller dogs with various health conditions.
thgland	Swanson Thyroid Glandular , 200mg capsules[32]

Appendix F: General caveats and disclaimer

This document was created in the hope it will be interesting to someone including me by providing information about some topic that may include personal experience or a literature review or description of a speculative theory

or idea. There is no assurance that the content of this work will be useful for any paricular purpose.

All statements in this document were true to the best of my knowledge at the time they were made and every attempt is made to assure they are not misleading or confusing. However, information provided by others and observations that can be manipulated by unknown causes ("gaslighting") may be misleading. Any use of this information should be preceded by validation including replication where feasible. Errors may enter into the final work at every step from conception and research to final editing.

Documents labelled "NOTES" or "not public" contain substantial informal or speculative content that may be terse and poorly edited or even sarcastic or profane. Documents labelled as "public" have generally been edited to be more coherent but probably have not been reviewed or proof read.

Generally non-public documents are labelled as such to avoid confusion and embarassment and should be read with that understanding. ‘

Appendix G: Citing this as a tech report or white paper

Note: This is mostly manually entered and not assured to be error free.
This is tech report MJM-2020-007.

Version	Date	Comments
0.01	2020-12-29	Create from empty.tex template
0.5	2021-10-24	version 0.50 MJM-2020-007
-	October 24, 2021	version 0.50 MJM-2020-007
1.0	20xx-xx-xx	First revision for distribution

Released versions,
build script needs to include empty releases.tex

Version	Date	URL
.50	2021-10-24	

@TECHREPORT{mmarchywka-MJM-2020-007,
AUTHOR = {M.J. Marchywka},
TITLE = { Supplement History for a Senior Hypothyroid Chihuahua },
NUMBER = {MJM-2020-007},
VERSION = { 0.50 October 24, 2021 PUBLIC NOTES },
INSTITUTION = { not institutionalized , independent},
ADDRESS = {306 Charles Cox , Canton GA 30115},
NOTE = {Version 0.50 , may change signficantly if less than 1.00 },
DATE = {October 24, 2021},
DAY = {29},
MONTH = {12},
YEAR = {2020},
AUTHOR1EMAIL = {marchywka@hotmail.com},
AUTHOR1ID = {orcid.org/0000-0001-9237-455X},
PAGES = { 51 },
CONTACT = {marchywka@hotmail.com},
FILENAME = {spicey}
}

Supporting files. Note that some dates,sizes, and md5's will change as this is rebuilt.

This really needs to include the data analysis code but right now it is auto generated picking up things from prior build in many cases

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3506 Oct 24 19:48 ./comment.cut 7ab5fd7461af0779da785bc7a356c282
1470 Oct 24 08:53 ./handmade.bib 200b810fa34166c0817a3fbe9c266346
19400 Aug 22 09:15 /home/documents/latex/bib/mjm_tr.bib 4cef853e3d35743d50cab1283ac0c49f
15815 Oct 20 09:43 /home/documents/latex/bib/releases.bib 8d4498077c0a54344af62175062f45df
```

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7331 Jan 24 2019 /home/documents/latex/pkg/fltpage.sty 73b3a2493ca297ef0d59d6c1b921684b
7434 Oct 21 1999 /home/documents/latex/pkg/lgrind.sty ea74beead1aa2b711ec2669ba60562c3
7162 Nov 13 2015 /home/documents/latex/pkg/mol2chemfig.sty f5a8b1719cee30a4df0739275ac75f8a
2857 Oct 4 2020 /home/documents/latex/share/includes/bibtex2.txt 9afee34eb8da693643444ddf4456aa2c
1069 Oct 15 19:43 /home/documents/latex/share/includes/disclaimer-gaslight.tex 94142
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425 Oct 11 2020 /home/documents/latex/share/includes/disclaimer-status.tex b276f09e06a3a9114f927e4199f379f7
1286 Nov 14 2019 /home/documents/latex/share/includes/mycommands.tex 18011c7f850bd7ab15625df8328e3cf8
2901 Jun 17 2020 /home/documents/latex/share/includes/myskeletonpackages.tex
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1538 Aug 14 07:26 /home/documents/latex/share/includes/recent_template.tex 49763d2c29f74e4b54fa53b25c2cc439
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467101 Oct 15 19:45 keep/IMG_20201229_093409.jpg 3f4e18b3973ed1184570d8e94dce24f2
525287 Oct 15 19:45 keep/IMG_20211009_052240.jpg 175335f0b55e75b366b34965c970b106
946774 Oct 20 15:31 keep/spicey20210719.jpg aacc2c214f1da05dae1fceebead4f8b2
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70710 Oct 22 19:18 ./keep/spicey_table.tex dc8d5a7dbe704948fde311c83abe5e6c
254530 Oct 18 06:14 keep/spicey_th_2020.pdf c77c7187c6287f5bc0fb8a2f48766272
98782 Oct 24 09:02 non_pmc_spicey.bib dd4ce0d0caf1c3820d49716f9c57f3a3
5558 Oct 23 06:07 pmc_spicey.bib a324d7553286d07827b4f465cb9e4158
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83418 Oct 21 15:46 ./spicey_andy.bib 197933d9a4f2fdb5f58fb9294f7ab02c
35423 Oct 24 19:48 ./spicey.aux 71a93a2657651e3b668f155fc9268281
19777 Oct 24 19:48 ./spicey.bbl fcc65c34877e3c66bb95a498b9fcbae7
104738 Oct 24 19:48 ./spicey.bib 1eb2b98b2d7483d71fe28079354fb991
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1731 Oct 21 09:35 ./spicey_blood.tex 4c6b399cb8dd03127969fb7ff2f40057
2367 Oct 24 19:48 ./spicey.bundle_checksums 1b28e5b30ad9708907bc818361d4c323
3 Oct 24 19:48 ./spicey.last_page 1aa55984651b2dc16275a24d7d5d81b7
61428 Oct 24 19:48 spicey.log 65039db8722789a42441fb43ae66f1c9
1033 Oct 24 19:48 ./spicey.out a9b5d13415c6edef2c649725fe1825a2
48731 Oct 24 19:48 ./spicey.tex be4107fa00b37377f7a3696bafb06c66
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1436 Oct 24 19:48 ./spicey.toc 5290449a170edcbb6e63907f2703bcb1
31050 Jul 21 2011 /usr/share/texlive/texmf-dist/bibtex/bst/urlbst/plainurl.bst
    ffdaefb09013f5fd4b31e485c13933c1


3018706 Oct 24 19:48 spicey.pdf 5f2b4f7c975ed9474e072102face58ab
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