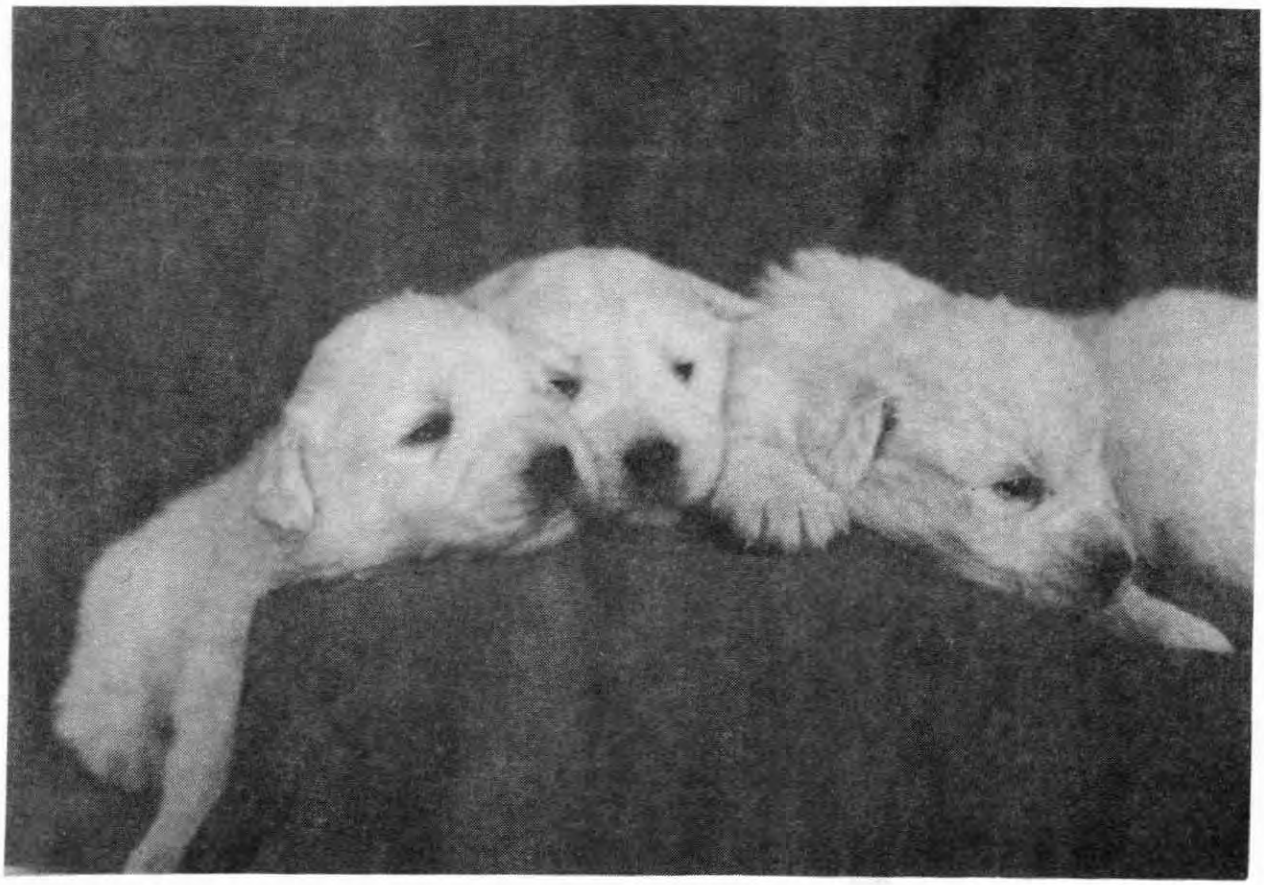
CASH MIRROR

VOLUME THREE, ISSUE FOUR JANUARY 1992



$2.50

CASHMIRROR

CASHMIRROR
REFLECTING THE CASHMERE INDUSTRY

Published each month by: **THE FARM,** P.O. Box 639, Toledo, Wa. 98591 206-864-4200, Fax: 206-864-4201

The entire contents of this newsletter are copyrighted. Reproduction in full or part, whether photograph, copy or sketch, is strictly forbidden unless written permission has been given by the Publisher prior to publication.

Opinions expressed in this magazine are not necessarily those of the Publishers. CashMirror limits its liability for errors, inaccuracies or misprints in advertisements, opinion papers and letters to the editor. Advertisers and agencies assume liability for the content of advertising and assume responsibility for any claims arising from advertisements made against the publisher. In case of error, the publisher is responsible only for costs associated with the space occupied by the error.

Results published in the newsletter are from information supplied by clubs and organizers and no responsibility for complete accuracy can be taken.

The CASHMIRROR welcomes contributions of articles and photographs. If possible type articles in double spacing on one side of the paper.

No responsibility will be taken for material while in transit or in this office, although it will receive maximum care.

TABLE OF CONTENTS

CaPrA Conference	**2**
Feed Goats Anything	**3**
Selecting Guard Pups	**6**
Nutrient Guide	**9**
Chevon Menu	**17**
Breeders Directory	**23**
Classified	**26**

Cover Photo: Maremma Pups at "The Farm" in Toledo, Washington.

CaPrA Holds Conference in Missouri

The Cashmere Producers of America in association with the Lincoln University Extension Service held the Annual CaPrA Conference in Columbia Missouri December 6th through 8th. The annual conference included many valuable presentations on cashmere and goat management as well as the first ever CaPrA conference show and sale.

Ellen Reker, Co-ordinator for the conference and Dr. Helen Swartz of Lincoln University Extension are to be commended for their hard work in putting on an excellent program.

CaPrA membership elected a new board member - Linda Pardon from Washington State. CaPrA board members elected its executive committee for 1992. Kris McGuire - President, Richard Jensen - First Vice President, Mike Lane - Second Vice President, Recording Secretary - Ellen Reker, and Treasurer - Yvonne Zweede.

Hugh Hopkins, General Manager of Forte' Cashmere Company and past Treasurer for the organization resigned. Hopkins did not issue a statement about his resignation and was not available for comment.

At the last three CaPrA annual meetings Forte' Cashmere Company had announced their fiber prices for the year. Earlier in the year it was announced that they would only buy from pooled sources and would negotiate prices individually from each pool.

Currently the only fleece pool in operation to handle and sell fleece to commercial processors is the American Cashmere Goat Marketing Co-Operative located in Colorado.

Dr. Helen Swartz of Lincoln University pauses between programs to relax.

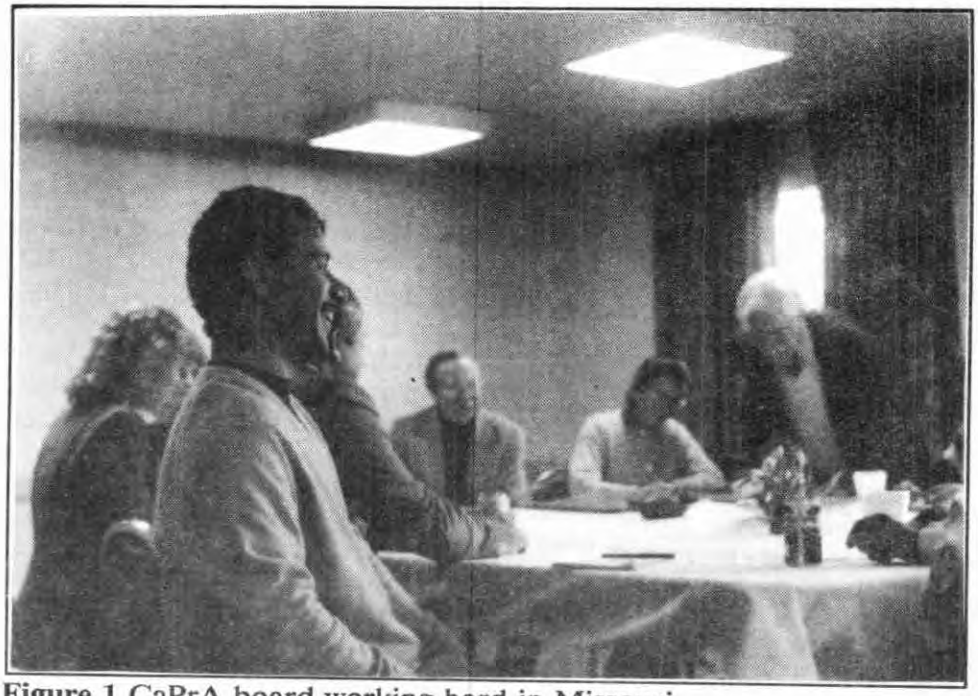


Figure 1 CaPrA board working hard in Missouri.

You Can Feed a Goat Just About Anything

(Except Tin Cans)

by Miriam Jeswine
Glacier Cashmeres
Dexter, Oregon

Sometimes the price of hay is enough to scare your bank account. Sometimes decent hay simply cannot be found. Alternative methods of feeding have to be found, and they are available. Fortunately goats can eat a wide variety of feeds and do well. I have fed discarded produce from a market I worked in. (I had to sort through and remove plastic and wire twist ties.) The goats loved it and ate everything, onions, garlic, lemons, oranges, and melons, as well as the things you would expect. They also got outdated bread and pastries. I have fed grass clippings and prunings, but watch out for poisonous plants like laurels and azaleas. I have also fed corn stalks and husks, squash and squash plants, cauliflower leaves, pea and bean plants and weeds from my garden. Potatoes, peppers, tomatoes and eggplant are off limits, though. Those members of the nightshade family are poisonous. I have even seen photos of goats on the coast of Saudi Arabia eating seaweed. Goats will eat a wide variety of feeds once they get used to the idea.

When a new goat joins the herd, she usually doesn't know that goats will eat such variety, and she will hang back, reluctant to try the new goodies. The example set by the others will soon get her to trying the strange new food, and pretty soon she comes running eagerly. The goats even like straw and can derive benefit from a diet based on grass straw if properly supplemented. I fed fescue and bentgrass straw in giant round bales this late summer and early fall because pasture was poor, and I was reluctant to buy more hay. I'd drive into the field with the bale on a flatbed truck and would have to keep chasing the goats away so they wouldn't get squashed when the bale rolled off the truck. The goats would swarm all over it, and that big bale would melt like a snowman on a hot day.

Sometimes the price of hay is enough to scare your bank account.

With the price of poor quality grass hay at $80 per ton and alfalfa, if you can find any, at least $150, a person could get persuaded to try about anything. Grass straw, at around $20 per ton, begins to look attractive, especially when you realize that the feed value is about the same as poor quality grass hay at $80. Realize that this is grass straw, not grain straw. Oat, wheat, and barley straws are not potential feeds for goats. Grass straws such as ryegrass, bluegrass, fescue, bentgrass, and orchard grass are suitable for goats which are not working very hard. They are mostly walking around, taking up space and eating, such as they do in late summer. They are not growing, pregnant or lactating. Bucks and yearlings which aren't bred can use straw until time to condition them for breeding season. Grass straw can be an alternative feed source if used right.

I worked out a cost analysis of various feeding options, from the least costly, feeding grass straw with protein blocks, to alfalfa hay with rolled corn, oats and barley, the most expensive. The following table shows the results. Of course feed prices vary from one locality to another, but this will provide the general idea. Prices I used in the analysis were $20 per ton for grass straw, $3.25 for a 33.33 lb. protein block, $80 per ton for grass hay, $9.50 per 80 lb. sack of 16% protein grain, $150 per ton for alfalfa and $6.50 per 50 lb. sack of rolled grains.

	Straw + Protein Block	Straw + 16% Grain Mix	Grass Hay + 16% Grain Mix	Alfalfa + Rolled Grain
Forage Consumed/Day	2 lbs.	2 lbs.	2 lbs.	2 lbs.
% Protein	8%	8%	8%	16%
Cost per Day	2 cents	2 cents	8 cents	15 cents
Supplement Consumed/Day	.313 lb	.5 lb.	.5 lb.	.5 lb.
% Protein	36%	16%	16%	9%
Cost per Day	3.1 cents	4 cents	4 cents	7.6 cents
% Protein in Diet	11.7%	9.6%	9.6%	14.6%
Total Cost per Day	5.1 cents	6 cents	12 cents	22.6 cents

Glacier Cashmere

Classic Style, Superfine

Miriam Jeswine
81811 Lost Creek Road
Dexter, Oregon 97431
(503) 937-2253

TWO FINE YOUNG BUCKS FOR SALE

PREMIER #SBIR 29
White/white, born March 31, 1991
Sire: Greenmount King Billy 7601 MFD: 17.4 at 28 months, long dense fleece.
Dam: Yarrum Rowella 834 MFD: 16.14 at 10 months

BANJO #SBIR 27
Tan/white, born April 1, 1991
Sire: Greenmount Banjo MFD: 17.42 at 26 months
Dam: Maitland Brenda 24 MFD: 16.61 at 18 months

Cashmere Breeding Stock *U.S.D.A. - S.B.I.R. Research Test Farm* *Maremma Livestock Guardian Dogs*

When thinking about feeding livestock, it is useful to perform computations like this to get a real comparison. The cost per day of feeding grass straw plus a 36% protein block is far lower than the cost of poor hay and a 16% protein grain mix, and the total protein in the diet is greater. The reason the cost is so low is that part of the protein in the diet comes from urea, which ruminants can use for part of their protein source. I find that the animals will gain weight on this diet if they are not working hard. It is not suitable for bucks in rut, growing kids, late pregnancy or lactation because the calory demands are higher than the straw and protein block will provide. Grass straw will provide 700 to 800 calories per pound compared to hay at 900 to 1000 calories per pound. The protein block provides fewer calories per ounce consumed than the grain mix as well.

The information about the nutrient contents of various feeds is available from your county livestock extension agent. Books about feeding livestock are great references to keep in your library. Some research has been done in other countries about the nutrient requirements of goats, and the better books will contain that information. A goat is not merely one-fifth of a cow, or the equal of a sheep when computing rations. I find that their activity level is much higher than either cattle or sheep, and they need more calories as a result. They also seem to have faster metabolisms, but that still seems to be a matter of study. Certainly, you can't just go by the book in feeding any animals. You have to be observant while you are trying new things.

Being willing to try new things can pay dividends. I find it useful to look around and see if there might be cheaper alternatives than feeding hay that costs $80 and worse per ton. The goats don't seem to waste any more of the straw than they do the hay, and I don't mind the waste nearly as much. Properly used, the grass straw can ease the pain in the bank account.

GROW CASHMERE....
THE AFFORDABLE WAY

OUR DOMESTIC DOES HAVE BEEN HAND SELECTED FROM HERDS BOTH IN TEXAS AND COLORADO AND THEN BRED TO OUR QUALITY BUCKS

EXAMINE OUR F1's AND SEE THE HIGH YEILDING FLEECES AND EXCELLENT CHARACTER YOU CAN OBTAIN IN ONE GENERATION

BRED DOES $250
BRED F1 DOES $400
(KIDDING TO BEGIN IN MARCH)

LAURA OBERFELD
P.O. BOX 21
POTTER VALLEY, CA 95469
(707) 743-1148

ROCKY MOUNTAIN CASHMERE

Locations In California And Colorado

MARREMA PUPS NOW AVAILABLE

The Farm
P.O. Box 639
Toledo, Wa 98591
Phone: 206-864-4200
Fax: 206-8624-4201

Selecting the Livestock Guardian Puppy

By Diane Spisak
Wellsville, Ks

Although each breed of livestock protection dog has unique qualities particular only to that breed, they all share common basic good livestock protection characteristics.

The ideal livestock guardian should be a sensitive, stable, relaxed, intelligent dog who is a somewhat submissive with a strong maternal characteristic and a low activity level.

How do we go about choosing such a pup?

An unstable dog could become a fear biter without proper attention.

Any guardian Dog breed with the correct temperament and aptitude can be used to protect such livestock as sheep, goats, miniature horses, alpaca, deer, cows, chickens, ducks, ostrich, emu and even pigs.

The most often used livestock guardian dog breeds are, Akbash Dog, Maremma, Anatolian Shepherd, Shar Planinetz, Komondor, Castro Laboreiro, Kuvasz, and Great Pyrenees.

Some breeders and service dog organizations are using temperament testing as an aid for determining aptitude and suitability of puppies for particular functions or purposes.

A modification of the basic test has been found valuable for determining livestock guardian suitability. I will explain to you a few exercises that you can perform with a puppy to help in your selection.

You have already researched the possible breeds available and have questioned breeders as to whether their adult dogs are full time, responsible guardians.

As you approach a litter of puppies, first sit back and observe the litter and its interactions. Take not which pups are more active and which are more reserve. The easiest dog to raise will be the more reserved pup. An active pup will get bored and tend to get into more trouble, chasing, chewing etc.

Select a pup and move to a quiet area. Gently roll the pup over on its back holding it down with your hand on its chest. Do this for 60 seconds and observe its reaction. A pup who lies there with little or no struggle is preferable to the pup who struggles violently. This exercise determines submissiveness and dominance. The livestock guarding dog should be somewhat submissive so as not to challenge the authority of the animals or bird that it is with. Strong maternal instincts make the dog want to protect its "family" not dominance or aggression.

Next with the pup sitting on the ground, take hold of the skin between the pups toes with your fingers and start to pinch gradually applying more pressure while counting to 10. A sensitive pup will pull its foot away by the count of 7. A sensitive pup will take a reprimand seriously and will be less likely to repeat the mistake. A less sensitive pup

ROBERT JENSON
Classical Carvings

P.O. Box 15284 • Portland, OR. 97215
(503) 231-9619

will not look remorseful while being spanked and will tend to go right back and repeat the act.

Test stability by placing the pup on the ground and make a noise by banging a spoon on a pot. Again observe the pups reaction. A stable pup should not run fearfully away and try to hide.

An unstable dog could become a fear biter without proper attention.

To test chase instinct tie a handkerchief to a string and drag it around in front of the pup. Most good guardian pups will not follow or will follow and then lose interest. A pup who aggressively chases with lots of enthusiasm may have too much chase instinct.

To test social attraction place the pup at your feet and slowly walk away while calling the pup. An independent pup will ignore you and go off exploring on its own and would be a good pup to place in a situation where it would not require a lot of human interaction. A pup who comes to you would be better placed in a situation where the dog would be expected to interact with people. The independent dog is also less likely to come when first called and can be a source of frustration to the person who wants a dog to interact with them.

To test for livestock suitability we use sheep but you can use any animal or bird. Place the pup in a pen with a neutral animal. The pup should either ignore the bird or animal, perhaps go up and sniff it or even lick its face. Then place the pup with an aggressive animal or bird. The pup should move away or avert its eyes and roll on its back in submission. The livestock guardian pup should never try and bite the animal or bird it is meant to protect!

The puppy who shows good aptitude in all the above exercises should, with some supervision through puppyhood, become an excellent livestock guardian.

The above exercises are just part of the entire temperament test, meant to give you a quick and easy way to help you determine the suitability and aptitude of a prospective livestock guardian dog purchase.

A puppy chosen for good aptitude will help insure success for the time invested in raising a livestock guardian dog to maturity.

For more information on temperament testing guardian dogs write for: livestock Protection Dogs - Selection Care and training by David Sims and Orysia Dawydiak, OTR Publications, P.O. Box 481 Centerville, Al 35042-0481

MISSOURI FARM™

There is a farm magazine for small farmers and small-acreage landowners!

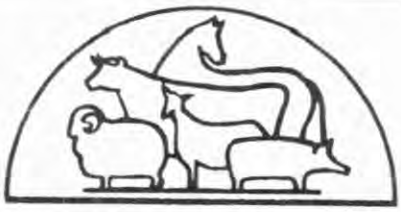
MISSOURI FARM is the magazine for today's small farmer and small-acreage landowner. It features how-to articles about alternative crops, high-value vegetable and small fruit crops, aquaculture, exotic/minor breeds of livestock, marketing, home-based business, bee-keeping, gardening, rural living and more. For more information on high-value crops and diversification on your small farm, subscribe to MISSOURI FARM today!

Yes, I'd like to subscribe to Missouri Farm
☐ 1 yr. $18 ☐ 2 yrs. $33 ☐ 3 yrs. $45

Name _____
Address _____
_____
Town _____
State _____ Zip ____
Amount Enclosed $_____

Clip and mail to:
Missouri Farm
Rt 1, Box 237
Clark, MO 65243

The American Minor Breeds Conservancy



Join the conservation effort to save livestock breeds facing extinction in North America. Over 100 breeds of horses, cattle, sheep, goats, swine and poultry are now at risk. Annual membership of $20 includes the bimonthly *AMBC News*.

AMBC • Box 477 • Pittsboro, NC 27312 USA • 919/542-3687

Nutrient Guide For Cashmere Goats

Helen A. Swartz, Ph.D.

INTRODUCTION

The purpose of feeding cashmere goats a proper diet is to produce healthy, high producing goats in meat and cashmere. Researchers have not identified the nutrient requirements for "cashmere" goats, but we can borrow from the research in nutrition from the Angora and dairy goat and this may be suitable for the cashmere goat. We can use the NRC tables as a guide for feeding cashmere goats and adjust these by observing body condition of the does and bucks. The "eye of the master" feeds the goats. There is no substitute for what we might term "livestock savvy". The person who can look at the cashmere goat in each stage of growth, development and production and adjust feedstuffs accordingly while following the recommended nutrients allowances for goats, is a good goatherd.

A "guide" for nutrients will include the major nutrients (water, protein, fat, carbohydrates and fiber), major or macro-minerals, trace or micro minerals, fat and water soluble vitamins. The absence of any one of these nutrients may result in symptoms that will reduce productivity in the herd.

MAJOR OR MACRO-MINERALS:
1) Sodium (Na)
2) Calcium (Ca)
3) Phosphorus (P)
4) Magnesium (Mg)
5) Potassium (K)
6) Sulfur (S)
7) Chloride (Cl)

TRACE OR MICRO-MINERALS
1. Cobalt (Co)
2. Copper (Cu)
3. Manganese (Mn)
4. Molybdenum (Mo)
5. Selenium (Se)
6. Iron (Fe)
7. Zinc (Zn)
8. Iodine (I)

The major minerals are needed in larger amounts in the diet of the cashmere goat but they are no more necessary than are trace minerals. The trace minerals are just as necessary but in smaller amounts.

The function and deficiency symptoms of major nutrients minerals, and vitamins are shown in tables 1-5. The most important nutrient for cashmere goats is water. It may be the most overlooked. Producers may not consider water as a nutrient. Water is necessary for normal body function, growth, pregnancy, milk production and breeding.

The recommended nutrient allowance for cashmere goats is represented from NRC tables for all classes of goats in Table 6.

The nutrient content of feedstuff will depend upon the content in the soil from which the feed has grown. In Se++ deficient areas, Se++ will be deficient in the feed and will need to be added to the ration. States may differ in providing feed analysis for producers but it is always cost saving and efficient to collect feed samples and have them analyzed to balance rations for goats.

A profitable cashmere enterprise will consist of lowering feed, labor and veterinary costs and increasing production of cashmere and meat.

Goats produce meat and cashmere on a wide variety of foodstuffs.

A total forage program will save on the total cost of feed and provide less feed

necessary in the winter months or dry summer months when forage is low in quality.

Feed in dry lot should be formulated to meet the NRC requirements. The averages for most all available feedstuffs are listed in tables so that they may be combined to meet their requirements. Some examples are listed in Table 7.

A profitable cashmere enterprise will consist of lowering feed, labor and veterinary costs and increasing production of meat and cashmere. Increasing the number of kids will result in increased profits barring the management and environmental compatibility with reduced mortality of kids. Increasing the number of kids will result in increased sale of meat and cashmere. Each doe that raises twins or triplets will increase profits and increase genetic progress in a herd.

Nutrition begins with the newborn. The newborn kid is essentially born a non-ruminant and the digestive system functions much as a pig or human. The most essential nutrients are provided in the COLOSTRUM which is much different in composition than that of milk. Colostrum contains ANTIBODIES, essential proteins to protect the newborn from diseases. These antibodies provide PASSIVE immunity which means they do not last long, actually about six weeks. It is imperative that the kids be given colostrum within the first few hours of birth. Colostrum also contains 4 times the amount of protein as milk and 10 times the amount of vitamin A and is low in lactose.

The antibodies in colostrum are large proteins that go through the gut wall into the bloodstream shortly after birth. We do not know when closure of the gut occurs in cashmere goats but we do know that in cattle, gut closure in calves can occur as early as 3 hours following birth.

Nutrition begins with the newborn. The newborn kid is essentially born a non-ruminant and the digestive system functions much as a pig or human.

Hypothermia (inability to keep body temperature normal) in newborns and starvation are the greatest causes of death in the newborn. Colostrum will help to reduce both causes.

Milk production in the doe requires both quality and quantity of feed. Depending upon the time and location of kids born, the feed should contain from 14-16% crude protein, 65% TDN (energy), 6% calcium and .4% phosphorus. Goats are natural browsers and many browse plants containing a high percentage of crude protein and energy as well as minerals and vitamins. Does browsing in the spring will selectively consume browse plants providing adequate milk production for twin kids. Sumac, for example, is comparable in nutrient content to alfalfa (Swartz et al, 1989). Growing kids will need high quality browse or a forage consisting of a mixture of grass and legume. Dry does and adult bucks will do well on lower quality forages.

Flushing does at breeding time will no doubt result in an increased kidding rate in cashmere does as it does in other breeds of goats and sheep. Dairy goats have multiple births frequently due to the high plain of nutrition fed to most dairy goats.

The heritability estimate for reproduction is 0 to 15% therefore, the environment, i.e., (temperature, humidity, feed) play a vital role in breeding and kidding rate in the cashmere goat.

Does that are fed well during late pregnancy and during the first four months of lactation had kids that grew rapidly and produced more fleece than kids on deprived milk supply (Ash and Norton, 1984) The development of the secondary follicles that produce cashmere can be enhanced by supplement feeding between 2-3 months after breeding the does (Lambert et al, 1984). These results showed single kids have higher secondary/primary ratio and

male kids appear to have more than female kids, pointing out the importance of nutrition in the production of cashmere in the goat.

The importance of nutrition in reducing the need for deworming in cashmere goats has not been extensively researched. Goats free of internal parasites will be healthier, grow faster and no doubt produce more cashmere. Rotating pastures or range will help reduce the parasite load and deworming with Panacure, Ivomec or Tramisol will reduce the worm burden in goats.

Nutrition and stress play a big role in the control of coccidiosis in goats and more especially in kids. Weaning is stressful to kids and if a large part of their nutrition was milk, the reduction in nutrition and stress of weaning may cause a large outbreak of coccidiosis. Lasalocid in creep feed will help control and prevent coccidiosis. Amprolium or sulfa should be given orally immediately if coccidiaocytes have been found in the feces. Damage to the intestinal lining by coccidia may result in irreparable damage resulting in stunted kids and low quality and quantity of meat and cashmere. Reducing feed costs and taking advantage of a well designed forage program including rotation will help to increase profitability in a cashmere goat operation and healthy goats.

TABLE 1

THE MAJOR NUTRIENTS

NUTRIENT	FUNCTION	DEFICIENCY SYMPTOMS
PROTEIN	Higher concentration in tissue (other than water).	Poor growth, poor production, milk and cashmere quality reduced.
WATER	Necessary for all body functions.	Dehydration, poor growth, reduced production, death.
FATS	Source of energy; solvents which aid in utilization of fat soluble vitamins.	Fat soluble vitamin deficiencies; reduced production.
CARBOHYDRATES	Source of energy to sustain life functions.	Poor growth and development. Poor production.
FIBER	Source of energy, helps maintain good rumen function.	Acidosis and liver abscess.

TABLE 2

THE MAJOR MINERALS

NUTRIENT	FUNCTION	DEFICIENCY SYMPTOMS
CALCIUM (Ca)	Bone and teeth formation, growth and development, muscles, nerves and blood clotting.	Rickets, depressed milk production and growth, tetany.
PHOSPHORUS (P)	Bone and teeth formation, milk production, growth energy transfer.	Rickets, weight loss, breeding and urinary problems.
MAGNESIUM (Mg)	Nerve/muscle function and activates enzymes.	Tetany and nervous disorders.
POTASSIUM (K)	Nerve function, stabilizes enzymes, muscle activity, carbohydrate metabolism.	Leg stiffness, weakness, weight loss associated with diarrhea.
SODIUM (Na)	Regulates pH, nerves, water retention, muscle contraction.	Reduced milk production, rough hair, weight loss, dehydration, staggers.
SULPHUR (S)	Essential to utilization of amino acids especially in goats. Sulfur - containing amino acids needed for cashmere production.	Excess salivation, weakness, weight loss, retarded growth, retarded cashmere growth.

TABLE 3

THE TRACE MINERALS

NUTRIENT	FUNCTION	DEFICIENCY SYMPTOMS
COBALT (Co)	Component of Vitamin B_{12}, needed	Watery eyes, sensitive skin, B_{12} deficiency, weight loss.
COPPER (Cu)	Muscle and bone functions, hair color.	Pale hair coat, anemia, diarrhea, hind leg stiffness.
IRON (Fe)	Builds red blood cells to carry oxygen for muscle development and body functions.	Anemia, unthriftiness.
IODINE (I)	Production of thyroid hormone.	Reduced basic metabolic rate, goiter, low milk production, poor growth, mortality in the newborn kid.
MANGANESE (Mn)	Activates enzymes and proteins.	Enlarged joints, weakness, poor locomotion, deformed legs.
ZINC (Zn)	Activates enzymes.	Skin disorders, tough hair coats, swollen joints.
SELENIUM (Se)	Aids utilization and spares for Vitamin E; muscle development and heart action.	White muscle disease, muscle degeneration; reproductive problems.

TABLE 5

THE WATER SOLUBLE VITAMINS

NUTRIENT	FUNCTION	DEFICIENCY SYMPTOMS
THIAMINE (B_1)	Needed for utilization of carbohydrates, fats, proteins and nervous system. Synthesized by micro-organisms in the rumen.	Nervousness, beri beri, loss of oxygen in the blood, enlarged heart, digestive disorders, inability to stand.
RIBOFLAVIN (B_2)	Essential for enzyme action and nutrient digestion for tissue repair and skin and cashmere production.	Stunted growth, reproductive problems, digestive disorders, dermatitis, weakness of kids at birth.
PYRIDOXINE (B_6)	Enzyme production; red blood cell formation; central nervous system functions.	Convulsions, slow growth, anemia, fatty liver.
VITAMIN B_{12}	Needed to promote healthy red blood cells, improves appetite, DNA synthesis.	Lethargy, low production, poor appetite, poor growth, B-Complex deficiencies.
VITAMIN C	Appetite, utilization of other vitamins, resistance to diseases.	Scurvy, anemia, poor growth, lowered resistance to infection.
PANTOTHENIC ACID	Maintenance of skin, hair and nervous system, efficient use of energy.	Poor coordination, stiff joints, inflammation of gut, anemia, low milk production.
NIACIN	Needed for skin, cashmere growth, nervous system. Also for increasing blood flow.	Slow growth rate and dermatitis.
BIOTIN	Needed for proper metabolism and maintenance of skin, hair coat, thyroid and adrenal functions.	Excessive hair loss, cracked hooves, slow growth, muscle spasms.
FOLIC ACID	Needed by red blood cells and in the formation of amino acids and development of the nervous system.	Anemia, retarded growth.
CHOLINE CHLORIDE	Essential to function of brain, nervous system, building of cell structure.	Slow growth, deformed legs, poor lactation, fatty livers.

TABLE 4

THE FAT SOLUBLE VITAMINS

NUTRIENT	FUNCTION	DEFICIENCY SYMPTOMS
VITAMIN A	Necessary for normal vision, for maintaining respiratory, reproductive, nervous ad urinary systems, healthy skin and quality cashmere.	Watery eyes, poor coordination, nerve degeneration, breeding problems, deformities at birth.
VITAMIN D	Regulates calcium/phosphorus utilization; promotes normal bone development.	Rickets, poor growth, problems at kidding.
VITAMIN E	Proper liver function; improves reproduction; aids in normal skin development.	Poor breeding, sensitivity to iron injection, muscle disease.
VITAMIN K	Forms blood plasma proteins for normal clotting.	Excessive bleeding from lack of clotting.

TABLE 6

Recommended Nutrient Allowances for Cashmere Goats

Class	Crude Protein (%)	Energy TDN (%)	Calcium (%)	Phosphorus (%)
Young kids	14-16	66-70	0.6	0.3
Growing does	12-14	65-70	0.4	0.2
Growing billies	12-14	65-70	0.4	0.2
Wethers	9-11	50-60	0.3	0.2
Dry does	9-11	50-60	0.3	0.2
Adult billies	9-11	20-60	0.3	0.2
Pregnant does (early-mid gestation)	10-11	55-65	0.3	0.2
Pregnant does (late gestation)	12-14	65-70	0.4	0.2
Lactating does	14-16	60-75	0.6	0.4

References:

Ash, A.J. and B.W. Norton. 1984. The effects of proteing and energy intake on cashmere and body growth of Australian cashmere goats. Proceedings of the Australian Society of Animal Production 15:247.

Lambert, A., B.J. Restall. B.W. Norton and J.D. Winter. 1984. The post-natal development of hair follicle groups in the skin of the Australian feral goat. Proceedings of the Australian Society of Animal

Swartz, Helen A., Fred Hassien, Mark Johnson and Richard Savage. 1989. Effects of angora goats co-grazing warm season grass-woody plant pastures on calf performances. Eighth 1890 Biennial Research Symposium, Assn. of Research Directors. Washington, D.C.

TABLE 7

Composition of Feedstuffs

Ingredient (%)	Crude Protein	TDN	Crude Fat	Crude Fiber	Ca	P
Corn #2	8.9	82	3.5	2.9	.01	.25
Oats, whole	12.0	68	.5	7.0	.10	.35
Wheat grain	13.5	78	1.9	3.0	.05	.41
Wheat bran	14.8	63	4.0	10.0	.14	1.17
Barley grain	11.5	73	1.9	5.0	.08	.42
Beet pulp (dried)	8.0	9	.5	8.2	.14	.54
Brewers yeast (dried)	45.0	72	.4	1.5	.10	1.40
Molasses (dried cane)	7.0	61	.5	9.0	1.18	.90
Molasses (cane wet)	2.9	55	0	0	.82	.08
Soybean meal (44%)	44.0	74	.5	7.0	.25	.60
Cotton Seed meal (41%)	41.0	70	2.1	11.3	.16	1.00
Alfalfa meal dehy (17%)	17.0	56	3.0	24.0	1.30	.23
Linseed meal (33%)	33.0	70	.5	9.5	.35	.75

LE CHEVON MENU

LEG OF LAMB "BOULANGERE"
By Chef Ed Michels, Portland Oregon

1 - 5 Pound leg of Goat, (ask the butcher to take the hip bone out). Make small slits in the leg and stuff with Garlic. Salt and Pepper meat, put in a roasting pan - no cover.

After one hour:
Slice and peel four (4) onions, (not too fine) and (4) russet potatoes - sliced the same as onions. Put the vegetables with the meat and cook together till tender and the meat is Pink - 140 degrees.

Carve and serve with onions, aux jus, garnish with chopped parsley. Serve with baby carrots or some other vegetable in season. A glass of good Burgundy goes well with the meal. You should invite 6 people for dinner.

CONCERNING CASHMERE...

The Newsletter for the Cashmere Producers of America (CaPrA)

FEATURING:

- ☼ **Current News and Developments in the American Cashmere Industry**
- ☼ **Readable and Easily Understood Articles on Fiber, Breeding, Selection, Genetics, Spinning and Husbandry**
- ☼ **Photos and Full-Color Advertising in the Breeder's Directory Issue**
- ☼ **Concise and Well-written Articles, Editorials and Opinions from Recognized Industry Leaders and Experts**

Join CaPrA to recieve your FREE subscription.
Newsletter Only Membership, $25.00/yr.
Capricorn Press, Inc.
P.O. Box 27
Virginia Dale, Colorado 80548
(303) 493-6015 • Phone & FAX

BREEDERS DIRECTORY

List your farm in 12 issues for $30.00

NAME: _____

FARM NAME: _____

ADDRESS: _____

CITY: _____ STATE: _____ ZIP: _____

PHONE: _____ FAX: _____

Mail to: CashMirror, P.O.Box639, Toledo, Wa 98591

****SUBSCRIBE NOW****

I WOULD LIKE TO SUBSCRIBE TO CASHMIRROR

Name _____

_____

Address _____

_____

City _____

State _____

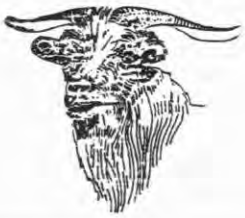
Zip _____

Phone _____

FAX _____

SUBSCRIPTION RATE: $15.00 PER YEAR
(12 ISSUES)

CASHMIRROR PUBLICATIONS
P.O. BOX 639
TOLEDO, WASHINGTON 98591



MOUNT ST. HELENS CASHMERE COMPANY

Orbie and Dora Mullins
3457 State Highway 508
Onalaska, WA 98570
(206) 978-6573 • (206) 864-6571

Wings & Hooves

Exotic Animals & The Marketplace

Bi-Monthly Digest

Dept 63, Rt. 3 Box 65, Chandler, OK 74834 Samples - $2.00

All foreign subscriptions must be payable in U.S. Funds on a U.S. Bank

•$16 yr USA •$22 yr Canada •$30 yr Others

ANIMALS EXOTIC and SMALL

1320 Mountain Ave
Norco, CA 91760
(714) 371-4307
24 Hour Fax
(714) 371-4779

Featuring
All Animals
Exotic and Non-Exotics

Subscribers throughout the United States and Canada Featuring: How-To-Articles, vet information, breed history, ways to supplement your income and more!

Annual Subscriptions
$15.00 U.S. - $25.00 Outside U.S.
Sample Issue $2.50

TWO EXCELLENT
"BRED"
CASHMERE DOES OFFERED FOR SALE

$2,500.00 (pair)

WHITE DOE A143 - DOB 8/20/90
FAWN DOE A149 - DOB 8/24/90

Both does are sired by Cascade Cashmere Company's Buck - Impara Stuart. Whatawhata Research Center conducted the buck's 3 year old fleece test 1991: MFD 16.4, SD 3.6, CEV 21.9. Total Fleece Weight 504 g. Down Yield 30.1

Dam of A149: Impara Liesl, D.O.B. 8-87, Fleece test AWTA 2-89: 14.90 micron, STD 2.23
Dam of A143: Maitland, D.O.B. 9-88, Fleece test AWTA 2-89: MFD 15.63, TFW 370 g.

Both Does are bred to Cascade Cashmere Company's A026 a young and promising untested buck sired by CCC's Ben Lomand (1991 NZ fleece test: 5 year old buck 18.4 micron, 4.4 S.D., 672 g TFW.) Kids are due to arrive March and April of 1992.

Excellent Condition!

Agent for the sale - Michel Paulin
Owner: Peter Schlentz
206-864-4200
P.O. Box 639
Toledo, Wa 98591

Fawn Doe 149 at 6 months old - good coverage and showing long guard hair

BREEDERS DIRECTORY

ARIZONA

CHIVO NEGRO
DW Cox
RR 1, Box 37 EE
Elfrida, Az 85610
602-824-3661

CALIFORNIA

ROCKY MOUNTAIN CASHMERE
Laura Oberfeld
P.O. Box 21
Potter Valley, Ca 95469
707-743-1148

ARBORETUM FARMS
Joe and Susan Tooker
Star Route Box 16B
Capay, California 95607
415-843-0744

FURRY DOWN FARM
Beverly Rolfe & Rolf Pinkwart
14254 Oak Ridge Road
Penn Valley, CA 95946
916-273-7653

PETALUMA OSTRICH FARM
Greg Gibson
5084 Lakeville Hwy
Petaluma, Ca 707-778-8303

SUNRISE CASHMERES
Melody and Jeremy Driscoll
P.O. Box 245
Blocksburg, CA 95414
707-926-5430

COLORADO

CANYON COUNTY CASHMERE
Mesa Creek Star Rt., Box 7
Naturita, Colorado 81422
Cynthia Walton
(303) 862-7214

CASHCO GOATS AMERICA
Jill Darrah
Bronwyn Scheutze
1901 Arapaho Dr.
Longmont, Co 80501
Phone: 303-776-9410
Fax: 303-776-8758

COLORADO CASHMERE BREEDERS
Russ Nelson
Ferris Hamilton
1762 W Fox Farm Road
Larkspur, Colorado 80118
Phone: 303-681-3832
Fax: 303-681-2545

CAPRICORN CASHMERES
Kris McGuire
1115 County Road 45E
Virginia Dale, Co. 80548
Phone & Fax: 303-493-6015

CONNECTICUT

CLASSIC CASHMERE BREEDERS
Peter Sellew
Carol McComiskey
Call Box 7 A
Lebanon, CT 06249
Phone: 203-642-7591
Fax: 203-642-7912
203-642-6965

ILLINOIS

PATRICIA FIORELL
505 S. Queen Anne Rd
Woodstock, Il 60098

MARYLAND

HUNT VALLEY CASHMERE
Hunt Valley Farms Inc.
6747 Whitestone Rd
Baltimore, MD 21207
1-800-284-3433
Fax: 301 298-3579
Lynn Beattie

MAINE

DOWN EAST CASHMERE
Andree Lawrence
RFD 2, Box 120
Belfast, Me 04915
207-338-2325

CHINA LAKE CASHMERES
Ward Cove Farm
P.O. Box 131
China, ME 04926
207-923-3972
Valerie DuPuy

BLACK LOCUST FARM
Yvonne Taylor
P.O. Box 378
Washington, ME 04574
207-845-2722

BESSEY PLACE CASHMERE
Wes and Marilyn Ackley
RFD #1 Box 2610
Buckfield, Maine 04220
207-336-2948

BREEDERS DIRECTORY

MICHIGAN

STONY LONESOME FARM
Susan Drummond
1451 Sisson
Freeport, MI 49325
616-765-3056

MONTANA

INDIAN TREE FARMS
Christine Maurer
Rt 2, Box 3495
Dutton, MT 59433
406-463-2451

PMF CASHMERE COMPANY
Tom and Ann Dooling
Pioneer Mountain Farm P.O. Box 1339
Dillon, MT. 59725
Phone: 406-683-5445
Fax: 406-683-5567

NEBRASKA

AIRY KNOLLS FARM, INC.
Richard and Harriet Jensen
RR3, Box 144 Cozad, NE 69130
308-784-3312

JOHN HARRIS
Rt 1 Box 193
Mitchell, NE 69357
308-635-1579

CORNHUSKERS CASHMERE
Randy Hartman
Rt 3, Box 253
Grand Island, NE 68801
308-381-8289

NEBRASKA

NEVADA CASHMERE GOATS
Star Rt Box 6
Lovelock, NV 89419
(near Orena)
207-273-7409

NEW MEXICO

JANE JASPER
1100 Behnke N.E.
Los Lunas, New Mexico 87031
Phone: 505-865-1880

NEW YORK

STONEHILL FARM
Mary Mathews
422 Mt. Holly Road
Katonah, New York 10536
914-232-9593

NORTH CAROLINA

BLUEBIRD MEADOW FIBERS
Marie Crock
623 Infinity Road
Durham, NC 27712
919-479-5069

OREGON

North West Cashmeres
Carole Laughlin
19025 SW Hillsboro Hwy
Newberg, Oregon 97132
503-628-0256
Tasmanian Stock

A & B CASHMERE
Auggie & Beth Pimentel
P.O. Box 6983
Brookings, Oregon 97415
(503) 469-4548
Fax: (503)247-6273

CHAMPAGNE CASHMERES
Lisa Faulkner
Adrienne Hochee
64315 Bend Redmond Highway
Bend, Oregon 97701
503-389-5392

OREGON CASHMERE COMPANY
Joyce Ruff
20995 NW Bishop Scott Road
Yamhill, Oregon 97148
503-662-4522

GLACIER CASHMERE
USDA SBIR TEST FARM
Miriam Jeswine
81811 Lost Creek Road
Dexter, Oregon 97431
503-937-2253

THE EWE AND I
(Suffolk Sheep and Cashmere Goats)
3121 Odell Hwy
Hood River, Oregon 97031
503-354-1963

MOUNTAIN LAKE FARM
Susan and Robert Stutz
Rt 1 Box 181
Gaston, Or 97119
503-359-3580
Australian/Tasmanian Cashmere Goats & AKC Great Pyrenees

BREEDERS DIRECTORY

RAINBOW RIDGE CASHMERE CO. LTD
1574 Dean Creek Road
Reedsport, Oregon 97467
Phone: 503-271-5514
Fax: 503-457-9911

PENNSYLVANIA

AMITY CASHMERE
Dawn Jernigan
1917A Old Bethlehem Pike
Sellersville, PA 18960
(215)-257-8847

TEXAS

WILDLIFE INTERNATIONAL
Bob Dillard
Box 81
Refugio, Texas 78377
512-526-2977

GOLDEN'S POINT
Larry Golden
Rt 2
Lockney, Texas 79241
806-652-3196

AMERICAN BREEDERS CASHMERE CO.
Don Jackman, Dennis Funderburgh,
Carroll Vernor
P.O. Box 9 - Hwy. N
Camp Wood, Tx 78833
512-597-6124

CR RANCH
Connie Ross
Star Route A
P.O. Box 764 A
Austin, Texas 78736
512-288-0853

VERMONT

LLC Cashmere
Lydia Ratcliff
RFD #1
Chester, Vermont 05143
802-875-3159

WASHINGTON

WORLD DESIGN CASHMERES
Lori Bialic
Star Route Box 87D
Oroville, Wa 98844
509-485-3600

RAINSHADOW FARM
Marcia Adams
25101 Chris Lane NE
Kingson, Wa 98346
206-297-4485

CASCADE CASHMERE COMPANY
200 Larson Road
Silver Creek, Wa 98585
206-983-3154
Fax: 206-983-3676

THE FARM
USDA SBIR TEST FARM
Michel Paulin
P.O. Box 639
Toledo, Wa 98591
Phone: 206-864-4200
Fax: 206-864-4201

BARREL SPRINGS CASHMERE
Linda & Steve Pardon
USDA SBIR Test Farm
143 Barrel Spring Road
Bellingham, Wa 98226
206-724-5371

AUSTRALIA

Cashking Cashmere Company
John and Margaret Banks
P.O. Box 333
Forth, Tasmania Australia
7310
Fax: 61-04-231-087

Ceduna Cashmere
Jim and Marg Cooper
Chads Creek Road
Strathewen, Victoria 3099
Australia
Phone: 61-03-714-8214

Greenmount Cashmeres
Tim and Jenny Eddington
RSD Ross Dhu
Selbourne, Tasmania Australia
7292
Phone/FAX: 61-03-966-162

CASHMIRROR
CLASSIFIED ORDER BLANK
PRECEEDING ISSUE DATE

Please publish _____ words
ad for _____ time(s) starting
with the _____ issue.
$0.50 a word

SEND CHECK OR MONEY ORDER TO:
CASHMIRROR, P.O. BOX 639
TOLEDO, WA 98591

CLASSIFIED ADS

PUBLICATIONS

ANGORA GOATS THE NORTHERN WAY
2nd Edition $15.00
Don and Sue Drummond
1451 Sisson Road
Freeport, Michigan 49325 616-765-3056

CASHMIRROR PUBLICATIONS : back issues of CashMirror. $3.00 per issue.
P.O. Box 639, Toledo, Wa 98591

"STEP IN THE RIGHT DIRECTION" Seminar notes from CashMirror Publication's 1990 Seminar. Cashmere Inheritance, by Dr. Bill Pattie and Dr. Barry Restall. $15.00, CashMirror Publications, P.O. Box 639, Toledo, Wa 98591

FLEECE

Buying Raw Fleece: Prefer quality, longer length, clean fiber for spinning. No cashgora. Send information/sample to : Susan/Mountain Lake Farm, Rt 1 Box 181, Gaston, Oregon 97119 (503)359-3580. 10

GUARD DOGS

AKBASH DOGS: Sensitive, stable, relaxed, intelligent and sound. For livestock protection or comanions! Temperament tested pups from working adults. OFA. Shipped nationwide. Sheepfields, Diane Spisak, P.O. Box 146, Wellsville, KS 66092 913-883-4774

MAREMMA LIVESTOCK GUARDIAN DOGS CLUB: Maremma Sheepdog Club of America, 1818 W Bippley, Lake Odess, MI 48849 616-374-7209. Free information and Breeder Directory

MAREMMA GUARD DOGS: 1 boy and 1 girl born November 30, 1991 available February, Michel Paulin 206-864-4200.

GOATS

Cascade Cashmere Company's, semen catalog now available. Ask for yours now. 200 Larson Rd, Silver Creek, Wa. 206-983-3154.

THE FARM CASHMERES, USDA/SBIR Test Farm, Now taking reservations for 1992 kids from imported quality Tasmanian stock. Call Michel Paulin, 206-864-4200.

ART WORK

GOAT SKETCHES: will do goat sketches from your photos. Can be put on clothing. Margaret Jensen, Box 385, Elgin NE 68636 402-843-2318

CASHMIRROR
1991 ADVERTISING RATES
DISPLAY ADVERTISING

AD SIZE	PRICE
Full Page	$125
1/2 Page	$75
1/4 Page	$45
Business Card	$25

Other display ads $15 per Column inch, Typeset, extra. Deadline: 8th of month Preceeding issue date

PAYMENT MUST ACCOMPANY ALL ADS UNLESS YOU HAVE ESTABLISHED CREDIT WITH US.

SEND CHECK OR MONEY ORDER TO:

CASHMIRROR
P.O. BOX 639
TOLEDO, WA 98591