Glossary

A glossary of terms used in the computer model and text description is provided here. This glossary provides definitions for terms, abbreviations, and acronyms used throughout the model and text revision. The user should note that the metric system is used internally for all calculations in the model, even if the user has chosen to use English units. No units are specified for variables used to calculate mineral requirements or supply because different units are used for different minerals.

a1: The thermoneutral maintenance requirement (Mcal/day/kg $BW^{0.75}$).

a2: Adjustment for previous temperature effect on maintenance requirement for heifers. (Mcal/day/kg $SBW^{0.75}$).

Absorbable: Total quantity of absorbable mineral supplied by the diet.

ADF(): Acid detergent fiber (% DM).

ADF__Total: Total ADF intake (g/day).

ADFIP: Acid detergent insoluble protein (% DM).

ADG: Average daily gain for animal given current age and weight status (kg/day).

ADG1st: Average daily gain at first calving (kg/day).

ADG1stBred: Average daily gain at first breeding (kg/day).

ADGNonBred: Average daily gain of non-pregnant replacement heifers (kg/day).

ADG2nd: Average daily gain at second calving (kg/day).

ADG3rd: Average daily gain at third calving (kg/day).

ADGPreg: Average daily gain due to conceptus growth (g/day).

ADGwoPreg: Average daily gain without pregnancy (kg/day).

ADGwPreg: Average daily gain with pregnancy (kg/day).

ADP: Apparently digestible protein (g/day).

ADPAllowGain: ADP allowable gain for young calves (g/day).

ADPGrowth: Apparently digested crude protein available for growth for young calves (g/day).

ADPMaint: Apparently digested crude protein for maintenance for young calves (g/day).

AF(1 To 9): Proportion of fat in the animal at specified condition score.

Age: Current age (months).

Age1st: Age at first calving (months).

Age1stBred: Age at first breeding (months).

Age2nd: Age at second calving (months).

Age3rd: Age at third calving (months).

AnimalType: Lactating cow, dry cow, replacement heifer, or young calf are the choices.

AP(1 To 9): Proportion of protein in animal at specified condition score.

Arg: Arginine (% CP).

Arg__Flow: Flow of arginine to the small intestine (g/day).

ArgPctMP: Arginine as a percent of metabolizable protein (%).

Ash: Dietary ash (% DM).

Balance: Difference between the quantity of the mineral required and supplied.

Breed: Breed of animal. The choices are Ayrshire, Brown Swiss, Guernsey, Holstein, and Jersey.

BV: Biological value used in apparently digested protein (ADP) calculation for young calves.

BW: Body weight (kg).

Ca: Calcium (% DM).

CaBio: Bioavailability of calcium in a feed (%).

CalfADG: Average daily gain of young calves (g/day).

CalfADPBal: Digestible apparently digested protein balance for young calves (g/day).
CalfAge: Calf age (weeks).
CalfBW: Calf body weight (kg).
CalfCPBal: Digestible crude protein balance for young calves (g/day).
CalfFat: Dietary fat in calf rations (kg/day).
CalfInt: Calving interval (months).
CalfKg: Efficiency of use of ME for NEg.
CalfKm: Efficiency of use of ME for NEm.
CBWFromMW: Used to compute calf birth weight from mature weight of cow if CalfBW is not available (kg).
CalfTemp: Environmental temperature for calves (°C).
cAsh: Calf ash (% DM).
Ca_TargetDietConc: Ration density for calcium required to meet animal's requirements.
CBW: Calf birth weight (kg).
CCFact: Coat condition factor used to adjust dry matter intake predictions for replacement heifers.
cCP: Calf crude protein (% DM).
cDCP: Calf digestible crude protein (% DM).
cDE: Calf digestible energy (Mcal/kg DM).
cDM: Dry matter for calf feeds (% as Fed (AF)).
cEE: Calf ether extract (% DM).
cGE: Calf gross energy (Mcal/kg DM).
Cl: Chlorine (% DM).
ClBio: Bioavailability of Cl in a feed (%).
cMEng: Calf metabolizable energy (ME) (Mcal/kg).
cMEovercGE: cME / cGE which equals the quotient, q, in the calf energy equations.
cNEg: Calf net energy for growth (NEg) (Mcal/kg).
cNEm: Calf net energy for maintenance (NEm) (Mcal/kg).
Co: Cobalt (mg/kg).
CoBio: Bioavailability of Co in a feed (%).
Coat: Adjustment to insulation due to wetness of coat. Depends on input CoatCond.
CoatCond: Input variable describing coat condition. Choices are clean/dry, some mud, wet/matted or covered with snow/mud.
ColdStr: Cold stress factor for computing the net energy requirement for maintenance with stress (Mcal/day/$BW^{0.75}$).
COMP: Compensation effect for previous plane of nutrition. Used for heifers only.
CP: Crude protein (% DM).
CP(): Crude protein for a specific feed (g/day).
CPDigest: Crude protein (CP) digestibility coefficient.
CPgCalf: Crude protein required for growth for young calves (g/day).
CPmCalf: Maintenance crude protein requirement for young calves (g/day).
CPPreg: Crude protein requirement for pregnancy (g/day).
CP_RDP: Fraction of crude protein (CP) that is degradable (RDP).
CP_RUP: Fraction of crude protein (CP) that is undegradable (RUP).
CP_Total: Total crude protein (CP) intake (g/day).
CS: Condition score, 1-5 dairy scale.
CS5EBW: Empty body weight of animal at condition score 5 (kg).
CS9: Condition score, 1-9 scale used internally in the model.
CS_F(1 To 9): Factor to calculate reserves for body condition scores 1 to 9.
Cu: Copper (mg/kg).
CuBio: Bioavailability of Cu in a feed (%).
CW: Conceptus weight (kg).
Cys: Cysteine (% CP).
DaysInMilk: Days in milk.
DailyMilk: Daily milk production (kg/day).
DaysPreg: Days pregnant (day).
DaysToChange: Number of days needed to increase or decrease one condition score (days).
DE: Digestible energy (Mcal).
DE_Total: Total DE intake (Mcal/day).
deltaER: Change in ER needed to increase or decrease one condition score (Mcal).
DesiredADG: User-defined target ADG (g/day).
DietADF: Fraction of ADF in the animal's ration.
DietaryNFC: Total dietary non-fiber carbohydrate (NFC) (g/day).
DietCP: Fraction of crude protein (CP) in the diet.
DietCPCalf: Dietary CP for young calves (%).
DietDCPCalf: Dietary digestible crude protein for calves (%).
DietFatCalf: Dietary fat (%).
DietME: Quantity of ME in the diet (Mcal/kg).
DietMECalf: Dietary metabolizable energy (ME) (Mcal/kg).
DietNDF: Fraction of neutral detergent fiber (NDF) in the diet.
DietNEgCalf: Dietary NEg for young calves (Mcal/day).
DietNEmCalf: Dietary NEm for young calves (Mcal/day).
DietNEg: Quantity of NEg in the diet (Mcal/kg).
DietNEl: Quantity of NEl in the diet (Mcal/kg).
DietRUPDigest: Total RUP digestibility for the diet (weighted average).
DietTDN: Fraction of TDN in the diet.
Dig_ArgFlow: Flow of digestible arginine to the small intestine (g/day).
Dig_HisFlow: Flow of digestible histidine to the small intestine (g/day).
Dig_IleFlow: Flow of digestible isoleucine to the small intestine (g/day).

Dig_LeuFlow: Flow of digestible leucine to the small intestine (g/day).
Dig_LysFlow: Flow of digestible lysine to the small intestine (g/day).
Dig_MetFlow: Flow of digestible methionine to the small intestine (g/day).
Dig_PheFlow: Flow of digestible phenylalanine to the small intestine (g/day).
Dig_ThrFlow: Flow of digestible threonine to the small intestine (g/day).
Dig_ValFlow: Flow of digestible valine to the small intestine (g/day).
DiscDE: Discounted DE (Mcal/kg).
Discount: Factor used to discount energy value to adjust for intake.
Distance: Distance traveled between pasture and milking center to calculate activity requirement.
DivFact: Factor used to adjust the intake of replacement heifers based on the energy content of the diet.
DLWReq: Energy required for daily live weight change.
DM: Dry matter (% as Fed (AF)).
DMFed: Quantity of a specific feed fed to an animal (dry matter basis, kg).
DMI(): Dry matter intake of a specific feed (kg/day).
DMIAvailGrowth: Dry matter available for growth (kg/day).
DMIActual: Actual dry matter intake (kg/day).
DMIDry: Dry matter intake of a dry cow (kg/day).
DMIForGrowth: Total dry matter intake used for growth (kg/day).
DMIForMECalf: Dry matter intake required to meet ME requirement of young calves (Mcal/day).
DMIForNEmCalf: Dry matter intake required to meet NEm requirement of young calves (kg/day).
DMILact: Dry matter intake of a lactating cow (kg/day).
DMIMaint: Dry matter intake required for maintenance (kg DM/day).
DMIPred: Predicted dry matter intake (kg/day).
DMIPreg: Dry matter intake required for pregnancy (kg DM/day).
DMIRH_Factor: An adjustment factor for intake of replacement heifers between 210 and 259 days pregnant.
DMI_RH: Dry matter intake of a replacement heifer (kg/day).
DMI_to_DMIMaint: Ratio of DMI to DMI required for maintenance.
DMI_Total: Total dry matter intake (kg/day).
DryMatterIntake: Dry matter intake (kg/day).
dTotalMCPEndArg: Contribution of microbial and endogenous protein to the supply of digestible arginine (g/day).
dTotalMCPEndHis: Contribution of microbial and endogenous protein to the supply of digestible histidine (g/day).
dTotalMCPEndIle: Contribution of microbial and endogenous protein to the supply of digestible isoleucine (g/day).
dTotalMCPEndLeu: Contribution of microbial and endogenous protein to the supply of digestible leucine (g/day).
dTotalMCPEndLys: Contribution of microbial and endogenous protein to the supply of digestible lysine (g/day).
dTotalMCPEndMet: Contribution of microbial and endogenous protein to the supply of digestible methionine (g/day).
dTotalMCPEndPhe: Contribution of microbial and endogenous protein to the supply of digestible phenylalanine (g/day).
dTotalMCPEndThr: Contribution of microbial and endogenous protein to the supply of digestible threonine (g/day).
dTotalMCPEndVal: Contribution of microbial and endogenous protein to the supply of digestible valine (g/day).
EBG: Empty body weight gain (kg) equals 0.956 × SWG.
EBW: Empty body weight (kg) which equals 0.891 × SBW.
EBW(1 To 9): Empty body weight of the animal for specified condition score (1 to 9) (kg).
EffMEPreg: Efficiency of use of ME during pregnancy = 0.14.
EffMP_NPg: Efficiency of use of MP for NPg.
EffMPPreg: Efficiency of use of MP during pregnancy = 0.33.
EI: External insulation (Mcal/m^2/° C/day).
EndCP: Endogenous crude protein (g/day).
EnergyADGCalf: Energy allowable average daily gain for young calves (Mcal/day).
EnergyAllowableMilk: Amount of milk production possible based on energy available (kg/day).
EnergyEqClass: Feed description to select for appropriate routine for energy prediction. Choices are forage, concentrate, and feed from animal sources (i.e., fish meal).
Energy_TargetDietConc: Amount of energy needed to meet animal's energy requirement. Expressed as NEl for cows and ME for replacement heifers (Mcal/kg).
ER(1 To 9): Energy reserves of the animal at a specified condition score (Mcal).
EQEBG: Gain size-scaled to the reference animal (g/day).
EQEBW: Equivalent empty body weight (kg) which equals 0.891 × EQSBW.
EQSBW: Equivalent shrunk body weight (kg).
EUN: Endogenous urinary nitrogen losses used in apparently digested protein calculations for young calves (g/day).

Fat: Dietary fat (% DM).
FatDigest: Fat digestibility coefficient.
Fat_Total: Total fat intake (kg/day).
FCM: Fat corrected milk production (kg/day). Corrected to 4 percent fat.
Fe: Iron (mg/kg).
FeBio: Bioavailability of Fe in a feed (%).
Fecal: Fecal endogenous loss of minerals.
FecalMP: MP loss in the feces (g/day).
FeedCategory: Feed groups. Choices are grass/legume forages, grain crop forages, energy sources, fats, plant protein feeds, animal protein feeds, by-product/other feeds, vitamins and mineral, and calf feeds (milk-based).
FeedMaint: Feed required for maintenance (kg DM/day).
Fetal: Fetal requirement. Used with minerals.
FirstCalf: Age at first calving (months).
Flat: A pasture system in which cows move less than 200 m of vertical distance.
ForageDescrp: Forage description which is used to predict rate of passage. Choices are wet or dry.
ForageNDF: Fraction of forage neutral detergent fiber in the diet.
Gain1CS: Energy needed to gain 1 condition score (Mcal).
Grazing: Is the animal on pasture? Choices are yes or no.
Growth: Growth requirement for minerals.
HairDepth: Effective hair depth (cm).
HeatStr: Heat stress factor for computing the net energy requirement for maintenance for replacement heifers based on the HeatStress variable. Applies to heifers only.
HeatStress: Heat stress description of breathing of heat-stressed animals. Choices are none, rapid/shallow, or open mouth. Applies to heifers only.
Hilly: Descriptor for pasture that influences the activity requirement, NEmact.
His: Histidine (% CP).
His_Flow: Flow of histidine to the small intestine (g/day).
HisPctMP: Histidine as a percent of metabolizable protein (%).
HP: Heat production (Mcal/m^2/day).
I: Iodine (mg/kg).
IBio: Bioavailability of I in a feed (%).
Ile: Isoleucine (% CP).
Ile_Flow: Flow of isoleucine to the small intestine (g/day).
IlePctMP: Isoleucine as a percent of metabolizable protein (%).
INS: Total insulation (Mcal/m^2/° C/day).
K: Potassium (% DM).
KBio: Bioavailability of potassium in a feed (%).
Kd: Protein digestion rate (%/hour).
Km: Diet NEl / DietNE is efficiency of use of ME for maintenance.
LactNum: Lactation number (integer).
Lactose: Lactose content of milk (%).
Lag: Week of lactation correction for dry matter intake of cows in early lactation.
LCT: Lower critical temperature (° C).
Leu: Leucine (% CP).
Leu_Flow: Flow of leucine to the small intestine (g/day).
LeuPctMP: Leucine as a percent of metabolizable protein (%).
Lignin: Lignin (% DM).
Lose1CS: Energy needed to lose 1 condition score (Mcal).
Lys: Lysine (% CP).
Lys_Flow: Flow of lysine to the small intestine (g/day).
LysPctMP: Lysine as a percent of metabolizable protein (%).
Maint: Sum of the miscellaneous, fecal, urine, and sweat losses for minerals.
MCP_Total: Total microbial crude protein (MCP) synthesis (g/day).
MEAllowGainPreg: ME allowable gain without pregnancy (kg/day).
MEAllowGainPreg: ME allowable gain with pregnancy (kg/day).
MEcs: Metabolizable energy required for cold stress (Mcal/day).
MEFGCalf: Metabolizable energy for growth for young calves (Mcal/day).
MEforNEg: Efficiency of conversion of ME to NEg.
MEGrowth: Metabolizable energy for growth. Used for heifers only.
MEI: Metabolizable energy intake (Mcal/day).
MEng(): Metabolizable energy in a specific feed (Mcal/day).
MEng_Total: Total ME intake (Mcal/day).
MEMaint: Metabolizable energy for maintenance. Used only for heifers (Mcal).
MEPreg: Metabolizable energy requirement for pregnancy (Mcal/day).
Met: Methionine (% CP).
Met_Flow: Flow of methionine to the small intestine (g/day).
MetPctMP: Methionine as a percent of metabolizable protein (%).
MFN: Metabolic fecal nitrogen. Used in calculations of apparently digested protein (ADP) for young calves (g/day).
Mg: Magnesium (% DM).
MgBio: Bioavailability of Mg in a feed (%).
Milk: Mineral requirement for milk production.

MilkDMI: Milk dry matter intake for young calves (kg/day).
MilkEng: Energy content of milk (Mcal NEl/kg).
MilkFat: Milk fat (%).
MilkProd: Milk production (kg).
MilkTrueProtein: True protein content of milk (%).
Misc: Miscellaneous loss component for minerals.
Mn: Manganese (mg/kg).
MnBio: Bioavailability of Mn in a feed (%).
MPAllowableGain: Gain possible at a given amount of MP without pregnancy (kg/day).
MPAllowableGainPreg: Gain possible at a given amount of MP with pregnancy (kg/day).
MPBact: Metabolizable protein supplied by microbial protein (g/day).
MPBalance: Metabolizable Protein Balance (g/day).
MPEndo: Endogenous metabolizable protein (g/day).
MPEndoReq: Amount of dietary protein required to supply endogenous protein (g/day).
MPFeed: Metabolizable protein supplied by the animal's ration (g/day).
MPGrowth: Metabolizable protein required for growth (g/day).
MPLact: Metabolizable protein required for lactation (g/day).
MPMaint: Metabolizable protein required for maintenance (g/day).
MPPreg: Metabolizable protein for pregnancy (g/day).
MPProvReserves: MP provided by mobilization of reserves (g/day).
MPReqReserves: MP required to replete reserves (g/day).
MP__TargetDietConc: Ration density for MP required to meet animal's requirements.
MSBW: Mature shrunk body weight (kg).
MW: Mature weight (kg).
MWFromBreed: Mature weight average for breed (kg).
Na: Sodium (% DM).
NaBio: Bioavailability of Na in a feed (%).
NDF: Neutral detergent fiber (% DM).
NDF(): Neutral detergent fiber for a specified feed (kg/day).
NDFDigest: Neutral detergent fiber (NDF) digestibility coefficient.
NDFIP: Neutral detergent insoluble protein (% DM).
NDF__Total: Total NDF (g/day).
NEDietConc: Concentration of net energy in the diet (kg DM/day).
NEFGCalf: Net energy available for growth for young calves (Mcal/day).
NEFP: Net energy for production (Mcal/day).
NEg(): Net energy for growth (Mcal/kg).
NEg(): Net energy for growth from a specified feed (Mcal/day).
NEgOverMEng: NEg__Total / MEng__Total.
NEGrowth: Net energy for growth (Mcal/day).
NEGrowthDiet: Net energy for growth available in the diet (Mcal/day).
NEGrowthDietNS: Net energy for growth available in the diet with no stress (Mcal/day).
NEg__Total: Total NEg intake (Mcal/day).
NEl(): Net energy for lactation (Mcal/kg).
NEl(): Net energy for lactation from a specified feed (Mcal/day).
NELact: Net energy requirement for lactation (Mcal/day).
NElOverMEng: Ratio of NEl to ME (NEl__Total / MEng__Total).
NEPreg: Net energy for pregnancy (Mcal/day).
NElReq: Amount of dietary net energy that will be needed to increase 1 condition score (Mcal).
NElSub: Amount of energy retained that will be substituted for dietary NEl in order to lose one condition score (Mcal).
NEl__Total: Total NEl intake (Mcal/day).
NEm: Net energy for maintenance (Mcal/kg).
NEm: Net energy of diet for maintenance (Mcal). This value is assumed to be equal to the net energy value of the diet for lactation (NEl__Total).
NEmact: The factor added to the basal maintenance requirement to account for activity (Mcal/day).
NEMaint: Net energy required for maintenance for mature dry and lactating cows (Mcal/day).
NEMaintNS: Net energy required for maintenance without stress for heifers (Mcal/day).
NEmCalf: Net energy required for maintenance for young calves (Mcal/day).
NEmOverMEng: Ratio of NEm to ME (NEm__Total / MEng__Total).
NEm__Total: Total NEm intake (Mcal/day).
NEPreg: Net energy required for pregnancy (Mcal/day).
NEReserves: Net energy required for replenishment of reserves or net energy available if reserves are mobilized (Mcal/NEl/day).
NFCDigest: Non-fiber carbohydrate (NFC) digestibility coefficient.
NightCooling: Factor used to adjust dry matter intake of heat-stressed replacement heifers.
NonMineralFeeds: Includes all feeds except for vitamin and mineral mixes that are assumed to contain no energy. Used in energy calculations for young calves.
NPg: Net protein requirement for gain (g/day).
P: Phosphorus (% DM).
PAF: Processing adjustment factor. Used to adjust for effects of processing on the non-fiber carbohydrate (NFC) fraction.
PBio: Bioavailability of P in a feed (%).
PerEAA: Percent essential amino acids (% RUP).

Phe: Phenylalanine (% CP).
Phe__Flow: Flow of phenylalanine to the small intestine (g/day).
PhePctMP: Phenylalanine as a percent of metabolizable protein (%).
PredIntake: Predicted intake (kg).
PrevTemp: Previous ambient temperature (° C).
ProteinAllowableMilk: Protein allowable milk (kg/day).
ProteinInGain: Protein in gain. Used in calculation of protein requirements for growth (g/day).
ProteinReqCalf: Protein allowable average daily gain (g/day).
PrtA: Fraction A of the crude protein that is non-protein nitrogen and a small amount of soluble true protein. (% CP).
PrtB: Fraction B of the crude protein that equals CP–PrtA–Prt C (% CP).
PrtC: Fraction C of the crude protein that is completely undegradable (% CP).
PsgRate(): Predicted passage rate.
P__TargetDietConc: Ration density for Phosphorus required to meet animal's requirements.
RD: Ration density of a mineral in the animal's ration.
RDPBal: RDP balance (RDPReq–RDPSup) (g/day).
RDPReq: RDP required (g/day).
RDPSup: RDP supplied (g/day).
RDP__Total: Total ruminally degraded protein intake (g/day).
RDP(): Ruminally degraded protein for a specified feed (g/day).
RDReq: Ration density of minerals required for young calf rations.
RE: Net energy retained (Mcal/day).
Reserves__WG: Weight gain due to reserves (kg).
RUP(): Ruminally undegraded protein for a specific feed (g/day).
RUPDigest: Fraction of the rumen undegraded protein (RUP) that is digested (% RUP).
RUPBal: RUP balance (RUPReq–RUPSup) (g/day).
RUPProvReserves: RUP provided by mobilization of reserves (g/day).
RUPReq: RUP required (g/day).
RUPReqReserves: RUP required to replete reserves (g/day).
RUPSup: RUP supplied (g/day).
RUP__Total: Total RUP intake (g/day).
S: Sulfur (% DM).
SBio: Bioavailability of S in a feed (%).
SA: Surface area (m^2).
SBW: Shrunk body weight (kg) is 96% of full weight.
ScurfMP: Scurf MP requirement (g/day).
Se: Selenium (mg/kg).
SeBio: Bioavailability of Se in a feed (%).
SRW: Standard reference weight (kg). For replacement heifers, this number is 478 kg.
SRW__to__MSBW: Standard reference weight/mature shrunk body weight (kg).
StarterDMI: Young calf intake of starter (kg/day).
SubFact: Age-related factor used to adjust intake of replacement heifers.
Supplied: Total quantity of a mineral supplied by the animal's diet.
Sweat: Sweat loss component for mineral requirements.
SWG: Shrunk weight gain (kg).
T: Age in days.
TargetADGwoPreg: Target ADG without pregnancy (kg/day).
TargetADGPreg: Target ADG with pregnancy (kg/day).
TDN: Total digestible nutrients (% DM) at 1 X maintenance.
TDN(): Total digestible nutrients for a specified feed (g/day).
TDN__Act__Total: Actual discounted TDN intake (g/day).
TDN__ActX: Total digestible nutrients (TDN) adjusted for increment over maintenance intake.
TDN__Act(): Discounted total digestible nutrients for a specified feed (g/day).
TDN__Total: Total 1X-TDN intake (g/day).
tdNFC: Truly digestible non-fiber carbohydrate which equals NFCDigest × (100–NDF–CP–Fat–Ash + NDFIP) × PAF.
Temp: Current temperature (° C).
TempFact: The factor used to adjust the maintenance requirement of cold-stressed replacement heifers.
TempFactor: The adjustment to the maintenance requirement for cold-stressed young calves.
TF(1 To 9): Total weight of fat at specified condition score (kg).
Thr: Threonine (% CP).
Thr__Flow: Flow of threonine to the small intestine (g/day).
ThrPctMP: Threonine as a percent of metabolizable protein (%).
TI: Tissue insulation (° C/Mcal/m^2/day).
Topography: Description of pasture. Choices are flat or hilly.
Total: Total quantity of mineral required.
TotalDigestedRUP: Total RUP digestibility for the diet (weighted average).
TotalDMFed: Total dry matter fed (kg/day).
TotalEAA: Total essential amino acids (g/day).
TotalMCPEndArgFlow: Contribution of microbial and endogenous protein to the flow of arginine to the small intestine (g/day).

TotalMCPEndHisFlow: Contribution of microbial and endogenous protein to the flow of histidine to the small intestine (g/day).
TotalMCPEndIleFlow: Contribution of microbial and endogenous protein to the flow of isoleucine to the small intestine (g/day).
TotalMCPEndLeuFlow: Contribution of microbial and endogenous protein to the flow of leucine to the small intestine (g/day).
TotalMCPEndLysFlow: Contribution of microbial and endogenous protein to the flow of lysine to the small intestine (g/day).
TotalMCPEndMetFlow: Contribution of microbial and endogenous protein to the flow of methionine to the small intestine (g/day).
TotalMCPEndPheFlow: Contribution of microbial and endogenous protein to the flow of phenylalanine to the small intestine (g/day).
TotalMCPEndThrFlow: Contribution of microbial and endogenous protein to the flow of threonine to the small intestine (g/day).
TotalMCPEndValFlow: Contribution of microbial and endogenous protein to the flow of valine to the small intestine (g/day).
TotalRegDMFed: Total regular (not milk-based) feed offered (kg/day).
TotalRUPArgFlow: Total flow of ruminally undegraded arginine to the small intestine (g/day).
TotalRUPHisFlow: Total flow of ruminally undegraded histidine to the small intestine (g/day).
TotalRUPIleFlow: Total flow of ruminally undegraded isoleucine to the small intestine (g/day).
TotalRUPLeuFlow: Total flow of ruminally undegraded leucine to the small intestine (g/day).
TotalRUPLysFlow: Total flow of ruminally undegraded lysine to the small intestine (g/day).
TotalRUPMetFlow: Total flow of ruminally undegraded methionine to the small intestine (g/day).
TotalRUPPheFlow: Total flow of ruminally undegraded phenylalanine to the small intestine (g/day).
TotalRUPThrFlow: Total flow of ruminally undegraded threonine to the small intestine (g/day).
TotalRUPTrpFlow: Total flow of ruminally undegraded tryptophan to the small intestine (g/day).
TotalRUPValFlow: Total flow of ruminally undegraded valine to the small intestine (g/day).
TP(1 To 9): Total weight of protein in the animal at specified condition score (kg).
Trips: Number of one-way trips a lactating cow travels between pasture and milking center daily.
Trp: Trytophan (% CP).
UndiscDE_Total: Total undiscounted DE intake (Mcal/day).
Urine: Urine endogenous loss component for minerals.
UrineMP: MP requirement for urine (g/day).
UseTargetADG: Use target (model-predicted) ADG. Choices are yes or no.
Val: Valine (% CP).
Val_Flow: Flow of valine to the small intestine (g/day).
ValPctMP: Valine as a percent of metabolizable protein (%).
VitA: Vitamin A (1000 IU/kg).
VitD: Vitamin D (1000 IU/kg).
VitE: Vitamin E (IU/kg).
WG: Weight gain (kg/day).
WindSpeed: Speed of wind (m/s). Maximum windspeed input is 32 kph.
WOL: Week of lactation. Used to predict intake in early lactation (week).
Wt1st: Weight at first calving (kg).
Wt1stBred: Weight at first breeding (kg).
Wt2nd: Weight at second calving (kg).
Wt3rd: Weight at third calving (kg).
YEn: Daily energy secretion in milk (Mcal NEl/day).
YFatn: Daily milk fat yield (kg/day).
YProtn: Daily milk protein yield (kg/day).
Zn: Zinc (mg/kg).
ZnBio: Bioavailability of Zn in a feed (%).