Kansas State University

Keeping Up With Research 132

ACRONYMS USED IN AGRICULTURAL LITERATURE

Eileen K. Schofield*

An acronym is defined as a word formed from the initial letters of each of the successive parts or major parts of a compound term. We're used to seeing them printed in capital letters, for example, NATO to replace North Atlantic Treaty Organization. However, the word radar is a true acronym derived from "radio detecting and ranging." An abbreviation is a shortened form of a word or name that does not make a new word, for example, KS or Kans. The term initialism has been proposed for the category in between: an abbreviation that is composed of the initial letters of the parts in a compound term but cannot be pronounced as a word. A familiar example is USDA to replace United States Department of Agriculture. However, initialism has not been accepted widely, and most people continue to refer to such abbreviations as acronyms. The definition of acronym has been expanded further to include abbreviations based on syllables of one word, for example, HP for horsepower, or a combination of syllables and initial letters, for example, PVC for polyvinyl chloride. Although most acronyms in all categories are printed in capital letters, the words they represent should be capitalized only if they are proper names.

Most areas of agricultural research have a set of accepted acronyms for commonly used terms. Authors also can make up acronyms for treatment groups, variables tested, and/or responses. Because using too many of these along with the standard acronyms can reduce readability, some publishers ask authors to avoid them. Acronyms sometimes are not defined, and most cannot be found in a dictionary.

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I compiled a list over a period of 3 years while editing manuscripts dealing with more than 20 subjects in agriculture and related areas. The list includes acronyms of all categories defined above that are used frequently in those subjects. The same acronym sometimes is used for more than one term but in different subject areas. Less frequently, two acronyms are used for the same term. To avoid repetition, some secondary meanings of acronyms are shown in parentheses. Additional words to clarify the meanings are shown in brackets. The list does not include acronyms made up for specific studies, those for agencies (NSF) or companies (IBM), or chemical abbreviations (N for nitrogen). Capitalized terms are proper nouns, such as the names of industry or government programs, procedures, systems, or people or trade names. All agricultural areas may not be represented equally, because I saw fewer manuscripts from some. Also, printing limitations determined the final number of acronyms that could be included in this publication. So this is not an exhaustive list, but I hope it will be useful to editors, county agents, producers, and anyone else who reads agricultural literature.

AA—amino acid, ascorbic acid
ABA—abscisic acid
ACTH—adrenocorticotropic hormone
ADF—acid detergent fiber
ADFI—average daily feed intake
ADG—average daily gain
ADIA—acid detergent insoluble ash
ADICP—acid detergent insoluble crude protein
ADIN—acid detergent insoluble nitrogen
ADP—adenosine diphosphate
AE—acid equivalent, assimilation efficiency
AET—actual evapotranspiration
AFDM—acid-free (ash-free) dry mass
AFLP—amplified fragment length polymorphism
AFO—animal feeding operation
AGP—acid glycoprotein
AI—artificial insemination, active ingredient, artificial intelligence
AM—arbuscular mycorrhiza (mycorrhizal)
AMD—age-related macular degeneration
AMP—antimicrobial peptide
ANN—artificial neural network
ANOVA—analysis of variance
ANU—apparent nitrogen uptake
AO—*Aspergillus oryzae* [Latin name of fungus]
AOC—analysis of covariance (also ANCOVA)
APC—aerobic plate count
ASD—aggregate size distribution
ATP—adenosine triphosphate
AU—animal unit
AUDPC—area under disease progress curve
AV—apparent viscosity
BC—body condition
BCAA—branched-chain amino acid
BCS—body condition score
BCV—bovine coronavirus
BGM—Banks grass mite
BHI—brain heart infusion [broth]
BHV-1—bovine herpes virus-1
BMI—body mass index
BMP—best management practice
BOD—biological oxygen demand
BRV—bovine rotavirus
BUN—blood urea nitrogen
BVD—bovine viral diarrhea
BVDV—bovine viral diarrhea virus
BW—body weight
BYDV—barley yellow dwarf virus

CA—cluster analysis
CAO—concentrated animal operation
CAT—catalase, chloremphenicol actyl transferase
CEA—cost-effectiveness analysis
CEC—cation exchange capacity
CER—cost-effectiveness ratio
CEW—corn earworm
CFU—colony-forming unit
CI—confidence interval
CL—corpus luteum (corpora lutea), confidence limit
CNS—central nervous system
COC—crop oil concentrate
CP—crude protein, capsid protein
CPC—coliform plate count
CPE—crude protein equivalent
CRD—completely randomized design
CRP—Conservation Reserve Program
CSB—concentrated separator by-product
CT—conventional tillage
CV—coefficient [of] variation

DA—discriminant analysis
DAP—days after planting
DAT—days after treatment
DBH—diameter [at] breast height
DDM—digestible dry matter
DE—digestible energy
DF—dry flowable
DHI—Dairy Herd Improvement
DIM—days in milk
DIN—dissolved inorganic nitrogen
DIP—degradable intake protein
DM—dry matter (mass)
DMA—dynamic mechanical analyzer
DMI—dry matter intake
DNA—deoxyribonucleic acid

DO—dissolved oxygen
DOM—digestible (dissolved) organic matter
DOMI—digestible organic matter intake
DON—deoxynivalenol, dissolved organic nitrogen
DOT—date of termination
DOY—day of year
DS—dry soluble
DSC—differential scanning calorimetry (calorimeter)
DTH—delayed-type hypersensitivity

EC—effective concentration, emulsifiable concentrate
ECB—European corn borer
ECM—energy-corrected milk
EDTA—ethylenediaminetetraacetic acid
EIPH—exercise-induced pulmonary hemorrhage
EL—electrolyte leakage
ELISA—enzyme-linked immunosorbent assay
EMC—equilibrium moisture content
EMG—electromyography
ER—endoplasmic reticulum

FA—fatty acid
FAW—fall armyworm
FBS—fetal bovine serum
FCE—feed conversion efficiency
FCR—feed conversion ratio
FE—fallow efficiency
FFA—free fatty acid
F/G, F:G—feed to gain ratio [feed efficiency]
FHB—Fusarium head blight
FISH—fluorescent in situ hybridization
FL—free lipid
FSH—follicle-stimulating hormone
FT—Fourier transform (transformation)
FW—fresh weight

GA—gibberellic acid
GB—greenbug
GC—gas chromatography (chromatograph)
GCA—general combining ability
GDD—growing degree day
GDP—gross domestic product
GDU—growing degree unit
GE—gross energy
GxE—genotype x environment [interaction]
G/F, G:F—gain to feed ratio [feed efficiency]
GI—gastrointestinal, gluten index
GL—glycolipid
GLAI—green leaf area index
GLC—gas-liquid chromatography (chromatograph)
GLM—general linear model
GMD—geometric mean diameter
GMO—genetically modified organism
GMP—good management practice
GNP—gross national product
GnRH—gonadotropin-releasing hormone
GPD—growing point differentiation
GR—growth rate, glutathione reductase
GRAS—generally recognized as safe
GSD—geometric standard deviation

HACCP—hazard analysis [of] critical control points
HAT—hours after treatment
HDD—heating degree day
HDL—high density lipoprotein
HE—hematoxylin [and] eosin
HI—harvest index
HKW—hundred kernel weight
HMW—high molecular weight
HP—horsepower (also hp), high performance
HPA—hypothalamic-pituitary-adrenal
HPCE—high performance capillary electrophoresis
HPLC—high performance liquid chromatography (chromatograph)
HPTLC—high performance thin-layer chromatography (chromatograph)
HRSW—hard red spring wheat
HRT-18—human rectal tumor-18 [cells]
HRWW—hard red winter wheat
HSV—herpes simplex virus
HT—high temperature
HTST—high-temperature short-time
HU—heat unit
HUS—hemolytic uremic syndrome
HWW—hard white wheat

IAA—indoleacetic acid
IBRV—infectious bovine rhinotrachitis virus
IBV—infectious bronchitic virus
ID—inner diameter
IGF-I—insulin-like growth factor-I
IGR—insect growth regulator
IHC—immunohistochemistry
IL-2—interleukin-2
IM—intramuscular (intramuscularly)
IMS—infrared microspectroscopy
IP—insoluble protein
IPM—integrated pest management
IR—infrared
IRT—infrared transducer
ITS—internal transcribed spacer
IV—intravenous (intravenously)
IVDMD—in vitro dry matter digestibility
IWM—integrated weed management

JH—juvenile hormone
JGMV—johnsongrass mosaic virus

kDA—kilodalton

LAB—lactic acid bacteria
LAI—leaf area index
LC—liquid chromatography (chromatograph)
LDL—low density lipoprotein
LEPA—low energy precision application
LER—land equivalent ratio
LH—luteinizing hormone
LM—longissimus muscle
LMW—low molecular weight
LPS—lipopolysaccharide
LSD—least significant difference
LSM—least square mean
LT—low temperature
LTER—Long-Term Ecological Research
LVE—low-volatile ester

MAb—monoclonal antibody
MANOVA—multivariate analysis of variance
MAPE—mean absolute percent area
MAS—marker-assisted selection
MAT—months after treatment
MBW—metabolic body weight
MC—moisture content
MCL—maximum concentration level
MCP—microbial crude protein
MCV—mean coefficient [of] variation
MDMV—maize dwarf mosaic virus
ME—metabolizable energy
MEL—maximum exposure limit
MEM—minimum essential medium
MG—maturity group
MIC—minimum inhibitory concentration
MLR—multiple linear regression
MP—metabolizable protein
MPN—most profitable number
MS—mass spectroscopy, microsatellite, Murashige [and] Skoog [medium]
MSE—mean squared error
MTO—modified tall oil
MUN—milk urea nitrogen
MW—molecular weight

NA—not applicable, numerical aperture
NDF—neutral detergent fiber
NDFD—neutral detergent fiber digestion
NEFA—nonesterified fatty acid
NEg—net energy [for] gain
NFDM—nonfat dried milk
NI—near infrared
NIL—near isogenic line
NIR—near infrared, near-infrared reflectance

NIRS—near-infrared reflectance spectroscopy
NIS—nonionic surfactant
NL—nonpolar lipid
NMR—nuclear magnetic resonance
NORG—norgestomet
NPE—net production efficiency
NPN—nonprotein nitrogen
NS—not significant
NSC—nonstructural carbohydrate
NSL—nonstarch lipid
NT—no tillage (no-till)
NUE—nitrogen use efficiency

OA—osmotic adjustment
OD—optical density, outer diameter
ODR—oxygen diffusion rate
OM—organic matter
OMI—organic matter intake
OP—organophosphate
ORF—open reading frame
ORP—oxygen reduction potential

PAGE—polyacrylamide gel electrophoresis
PAH—polycyclic aromatic hydrocarbon
PAI—plant area index
PAM—polyacrylamide, pulmonary alveolar macrophage
PAR—photosynthetically active radiation
PAW—plant available water
PBS—phosphate buffered saline
PCA—principal components analysis
PCR—polymerase chain reaction, principal components regression
PCV—packed cell volume
PDI—pellet durability index
PEG—polyethylene glycol
PEL—permissible exposure limit
PER—protein efficiency ratio
PFU—plaque-forming unit
PG—prostaglandin, propyl gallate
PHA—phytohaemagglutin
PI—plant introduction
PIM—pulmonary intravascular macrophage
PL—phospholipid
PLD—phospholipase D
PLS—partial least squares
PMB—premature browning
POM—particulate organic matter
PON—particulate organic nitrogen
POST—postemergence
PPI—preplant incorporated
PRE—preemergence
PRID—progesterone-releasing intravaginal device
PRRS—porcine reproductive [and] respiratory syndrome
PRV—pseudorabies virus
PS I—photosystem I
PS II—photosystem II
PSE—pale, soft, [and] exudative
PUE—precipitation use efficiency
PUN—plasma urea nitrogen
PVC—polyvinyl chloride
PW—peptone water

QTL—quantitative trait locus (loci)

RA—relative abundance, retinoic acid
RAPD—random amplified polymorphic DNA
RBC—red blood cell
RBD—randomized block design
rbST—recombinant bovine somatotropin
RCB—randomized complete block
RCBD—randomized complete block design
R&D—research and development
RDS—ruminally degradable starch
RFLP—restriction fragment length polymorphism
RH—relative humidity
RIA—radioimmunoassay
RMSE—root mean squared error
RNA—ribonucleic acid
ROI—return on investment
ROW—right-of-way
RP—reversed phase
RSE—residual standard error
RSM—response surface methodology (model)
RT—room temperature, reverse transcriptase
RTE—ready to eat
RUBISCO—ribulose 1,5-bisphosphate carboxylase
RUP—rumen undegradable protein
RVA—Rapid Visco-Analyser
RVP—remaining value percentage
RWA—Russian wheat aphid
RWC—relative water content
RY—relative yield

SAA—sulfur amino acid
SAI—stem area index
SAS—Statistical Analysis System
SBM—soybean meal
SCA—specific combining ability
SCC—somatic cell count
SCFA—short chain fatty acid
SCMV—sugarcane mosaic virus
SD—standard deviation, spray-dried
SDAP—spray-dried animal plasma
SDPP—spray-dried porcine plasma
SDI—subsurface drip irrigation
SDS—sodium dodecyl sulfate
SE—standard error
SEC—size exclusion chromatography (chromatograph)

SEM—scanning electron microscopy (microscope), standard error [of the] mean
SF—sorghum-fallow
SFE—supercritical fluid extraction
SI—saturation index
SKCS—Single Kernel Characterization System
SLB—Septoria leaf blight
SLU—standard livestock unit
SME—specific mechanical energy
S/N—signal to noise [ratio]
SNF—solids-not-fat
SP—swelling power, soluble powder
SPSS—Statistical Package [for the] Social Sciences
SRL—specific root length
SrMV—sorghum mosaic virus
SRWW—soft red winter wheat
ST—somatotropin
STD—standard deviation
STP—sodium tripolyphosphate
SWC—soil water content
SWCB—southwestern corn borer
SWW—soft white wheat

TA—titratable activity
TAI—timed artificial insemination
TBARS—thiobarbituric acid reacting substance
TBS—Tris-buffered saline
TDF—total dietary fiber
TDN—total digestible nutrients
TDOMI—total digestible organic matter intake
TDS—total dissolved solids
TEM—transmission electron microscopy (microscope)
THI—temperature humidity index
TKW—thousand kernel weight
TL—total lipid
TLV—threshold limit value
TMDL—total maximum daily load
TMR—total mixed ration
TN—total nitrogen
TNC—total nonstructural carbohydrate
TP—total phosphorus
TPC—total plate count
TSA—tryptic soy agar
TSB—tryptic soy broth
TSM—twospotted spider mite
TU—thermal unit
TWA—time-weighted average

UAN—urea ammonium nitrate
UF—ultrafiltration
UIP—undegradable intake protein
UTR—untranslated region
UV—ultraviolet

VAM—vesicular-arbuscular mycorrhiza (mycorrhizal)
VSV—vesicular stomatitis virus

WAT—weeks after treatment
WBS—Warner-Bratzler shear [force]
WCF—wheat-corn-fallow
WCM—wheat curl mite
WEPS—Wind Erosion Prediction System
WF—wheat-fallow
WSBMV—wheat soilborne mosaic virus
WSF—wheat-sorghum-fallow
WSI—water stability index
WSMV—wheat streak mosaic virus
WUE—water use efficiency

ZO—zinc oxide

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*Former Senior Editor, Department of Communications.

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