

# What Is the Entropy in Crypto? 25-10-2025:

## KEY TAKEAWAYS:

- Your Secret recovery phrase (seed phrase) is a set of human-readable words that represent a large randomly generated number called the entropy.
- To stay secure, your wallet must generate the entropy in a random way, if it doesn't, your seed phrase is too easy to guess.
- The ecosystem uses a secure mechanism to generate the entropy, so you can rest assured it's safe from attackers.

The entropy is simply a very large random number created by crypto wallets that is represented (most frequently) by a seed phrase.

You might have heard about a seed phrase before. Simply, it's the 12-24 word phrase you're presented with when you first initiate a crypto wallet. It's also known as a mnemonic, and it serves as a backup for every account ever created by that particular crypto wallet.

However, your seed phrase doesn't start out as words. It's actually just a large random number, otherwise known as the entropy.

Essentially the entropy contains exactly the same information as your seed phrase, but it's presented in a different format—a less readable format. But how does that work exactly?

## How Does The Entropy Work?

The concept of the entropy was introduced with the publication of the BIP-39 standard in 2013. In short, this standard introduced a standardized way to translate this number into easy-to-write-down words.

That's because the entropy itself is very long; specifically 256 bits of information for a 24 word recovery phrase or 128 bits for a 12 word recovery phrase. This allows you to backup your wallet and generate new private keys for new accounts. However, backing up so many bits of information is impractical.

A seed phrase, made up of 12-24 English words out of a fixed list of a possible 2048, is much easier to write down and look after. So that's exactly what the BIP-39 standard does: it provides a way to literally translate the entropy into 12-24 words.

## Seed Phrase **BIP-39**

arrow have crime slam olympic habit toward mandate say first kick spoil	very light drink speed promote torch alarm false ordinary injury cricket build
swift term enlist loyal suffer lawn test flame twist pact indicate oppose	arctic where credit brave trip trick whip alter merge olive squeeze thank
sister position smart someone fitness what bread found sand buyer rail length	smile wheel slush machine forest island carbon cradle tenant topple damage exhaust
pear exile harsh scatter stage follow impose walk cement bring width guess	buffalo wet coil giant slogan essay camera narrow front goat float monster
label true wing veteran gift elephant box love insect equal casino control	install grocery panther focus sting maid vocal abstract betray provide crazy dance
child noodle point adult seat oyster shock announce fall maple profit obtain	flavor lawsuit circle gallery diet boat remain soap omit snow judge small
van extend wolf pond pulse donkey mosquito portion vapor twenty own swap	slow ribbon album gauge still collect clock earn ignore snack calm hundred
spot saddle bean pulp pave erupt laundry pride option laptop upgrade insane	joy issue call express travel museum eight anger dog pole cause hill
chapter ketchup decline tiger drill patrol quarter legal jewel buzz reveal one	prevent dragon review metal captain behind swear rate dial attack quick poverty
nephew coral flash october food sail famous scheme horror tube away unable	neglect name advice glove cherry genuine robot battle minor hover actress rabbit
zebra hood expect fashion uphold crisp close oblige rude help lady cattle	chimney vibrant average vast surround finish drama plastic chronic treat spy keep
slender struggle only grief bag snake impact brisk fork click blind latin	mountain brass relax base final clip victory rigid certain honey soon book
actor solve cost crowd item target obey strike iron body blur alcohol	road episode fabric green grunt orbit fade relief pizza coffee potato verify
economy hard rent coconut decorate oxygen hint stadium cloud company trash faith	meadow print elevator chef spawn boil among slide train recycle badge empty
liar ginger fatal turtle rain armed regret twin tunnel title today forget	misery avocado maximum jeans awake square arena resist core gold exotic already
expose carry prison wage ostrich blood like topic chase east north multiply	level wrist expand subway over quit busy arch common bronze life mother
view play proud damp prize used real evolve blade essence hub execute	shield fire vague magic awkward bubble warm decade vanish deliver distance giraffe
negative hello inner wish lobster puppy sick problem attract organ before mutual	junior bar salute viable quiz keen license there morning crucial steak fun
vacuum person enjoy medal angle trim clever banana soldier empower anxiety sure	involve broccoli news pipe outer car magnet wool idle swarm state receive
sentence asset frog budget woman benefit bless arm language scene stick cigar	edge hurdle verb divide mango cute admit letter absurd pigeon web orient
trend office spin put toss nominee celery grow depend page police spray	unlock kite spring hunt blouse library grace student cotton naive author truth
feel velvet film top phone popular mammal thumb stem tower city bench	evidence glad furnace beyond marble symptom couple similar park mind about power

attitude balcony vital ladder wire garbage sell erosion into luxury illness actual	raise gravity unfair safe sample convince december way notable dizzy winter blast
lamp myth suspect cancel auction stomach design siege two smoke dentist document	elite seven scout jazz gather nasty galaxy deposit shaft plunge jar census
leopard offer learn mansion sense brain escape business uncover juice clean pink	planet knee walnut ridge slice heavy shadow danger device crunch holiday transfer
eyebrow crater soup gate subject ripple ice correct wave absent man solar	roast deputy meat absorb release demise check ahead disorder weapon helmet echo
sheriff long trigger shoe kidney gap panel stone electric syrup grain riot	interest area snap peanut burst knock hollow cry valve motion retire tissue
eagle art humble apology tiny jacket combine bunker wonder simple assault unique	service clay radar knife claw clog either time wife laugh all seed
stairs friend gain cushion pass beauty enforce enemy voice satoshi derive code	drift change climb shine charge tip step evoke sphere bomb tag volume
survey buddy pumpkin setup brand sunny giggle globe mushroom space ill yard	dash guilt fatigue undo consider ready zoo blue draw purity banner traffic
slot once tone favorite home fiber jelly jungle apart protect return doctor	file tuna media leg dice powder adapt wrestle isolate engine genius address
remove rookie since history artefact cook crystal deny update oil clown adjust	aunt sight leisure hat fossil animal side card digital frame layer usual
fan wood half flush trophy game lab cream idea permit trap bird	kangaroo around hope stumble march must genre soul season coach token dumb
inflict sing thunder diagram outdoor such off dutch amused coyote acid move	monitor crew reward dish manual warfare tackle coast aisle summer good slab
lava winner airport board enter hedgehog pottery tortoise toy pill menu salon	memory despair mail scan bracket toe require shop lens nut napkin abuse
comfort feature cover volcano dress social also tree resemble noise near embark	wedding pyramid possible figure hotel renew rely three hospital sunset cool fantasy
sea leave okay champion middle route gas fox submit tank staff alone	air journey milk exercise flower heart later canvas market agree extra human
unaware dolphin much lunar axis best outside disagree drop deal solid solution	direct physical ecology sad silk sword drastic begin fruit wreck effort inherit
cage school crawl monkey define better post until uncle practice general guard	share eye bullet boring hazard foam leaf little key stereo cereal poet
caught debris sudden accuse know fresh bid skull net melt endless sport	merit crush dynamic dismiss because grab bridge cluster rich swallow present industry
lesson punch harvest awful script order foster embrace amateur pull domain original	nice river poem master unfold pioneer enroll peace aspect foot evil arrange
action era same edit improve catalog girl cheap culture split afford vehicle	agent ethics drum artist example gadget segment barely million ceiling year again
dust throw process mimic piano labor mercy couch public casual local boy	symbol become depart detect reopen range access surge opinion void produce task
sugar thing energy special coin trade open pudding artwork cinnamon strong below	debate second divert husband choice sun note dream wagon salt farm street
tired scissors risk beach tomato horn employ parrot urban wink jump income	fury spike donor live onion together hidden scale ranch lunch midnight vault

mention type grant differ venture ivory toast eager diesel gospel demand purchase	hammer amount other nation above fee father tornado cake trial peasant ugly
immune start health night dry fiscal wait chuckle door lumber limb exhibit	plug excuse index balance dune great horse usage under hold excess group
dinner brick caution sustain century observe angry aim raw suggest impulse raccoon	job autumn bind track decide need spoon save welcome clerk skin black
miracle glimpse kid muffin curious recall tape flat minimum field corn bamboo	boost mesh rifle defy arrest chief engage hand network pledge when response
question easily rose melody ancient kiwi alpha bottom reform pony antenna visual	sleep strategy accident canal glance initial matter urge include theory age pitch
inmate make crop tail quality camp large cat legend envelope gloom gorilla	liberty audit polar upper desert swamp upon wheat ten exist firm message
next loud total brush goddess rare lock bonus churn choose mix photo	predict paddle seminar unknown normal catch fit emotion rubber cabbage style obvious
pencil hybrid lyrics load valid salmon cube rather raven garlic vicious intact	kind ring tooth appear blossom owner tent fortune daring deer cruel dove
section gaze parade crouch chaos connect supreme umbrella repair leader bleak smooth	vendor region gossip vote devote skill hurry ensure cycle rocket fish basket
blame theme use arrive innocent height garage shallow breeze border path race	success add try tray hire inch sound shuffle egg worry draft wear
during hole select mobile south athlete nuclear gasp pistol increase cliff pair	ability situate tattoo fuel borrow daughter priority civil mouse error hair prepare
shoulder argue mask glory romance enact crack reason mule equip old notice	enable youth talent soda jealous rescue rule plate drive almost motor elbow
trouble render pepper curve hawk funny unit silent forum rough spirit online	razor young hour antique party rhythm glide thrive quantum scorpion tuition program
dwarf bright alley decrease imitate violin truly alert reject major eternal salad	price robust blush place analyst concert you novel face fine match limit
silly army please fringe spend rug bitter run blanket inside cup fiction	garden prefer obscure detail wild version amazing weekend secret series fetch anchor
current acquire category erase flee useful stock zone tumble faint squirrel sock	allow aware april craft lecture expire roof rally list host flight sniff
destroy west believe parent nose zero answer purse addict creek enrich embody	lizard water avoid invest thought orphan lonely wall perfect afraid this act
family size pig gesture ticket moon february endorse video diamond citizen educate	lake guitar early scrub weird candy rival element flock inquiry session they
merry unveil pet waste shed account pattern patch gown wash retreat find	doll silver fever annual attend grid reunion cannon timber short oval teach
festival hen abandon shrimp ride grit marine grape mixture fault bundle super	curtain venue burden write steel senior sibling valley virtual dinosaur primary soccer
erode twice seek team hungry ship manage dawn mixed kitchen turkey month	elegant dilemma liquid proof spatial boss screen another always shove round fence
feed record cousin picture spell palace hurt duty nest lounge dignity model	nature goose mom donate tennis tragic skirt end drip tourist will explain
opera few radio color scare glue tongue flip tomorrow uniform shrug fold	material canyon link bargain chair stay rebel approve more private measure word

settle emerge harbor finger bulb bike claim brief cabin clarify tool pause	hip wise siren vintage rapid wine nerve mechanic spare fragile govern dirt
clump wide pupil bone taste chicken female swim exit ramp wasp copper	cactus scrap never kit flag spice that sponsor vessel beef spider basic
inform often resource member wisdom fix luggage stable satisfy maze humor belt	method talk brother myself room conduct come mystery unhappy can orange right
hamster regular pelican weasel muscle useless stove report glare fluid just force	enhance head picnic movie inject invite output stool confirm spread purpose dad
toddler auto acoustic twelve exclude world project broken upset entry diary birth	mirror want affair remember witness oven oak moment aerobic cloth disease discover
tribe inspire identify crumble puzzle frown lazy slight main sauce search tilt	club win voyage immense neck yellow science property column defense mad wealth
text various capital visit clinic matrix excite gentle lend visa patient shoot	moral client pool frequent comic switch earth exchange alien neither tide cross
shell else music butter mean loan day nothing miss indoor remind soft	rural broom suit phrase shy high case estate rebuild minute result sadness
capable elder virus baby chest penalty push reduce fog source royal surface	bulk typical vacant crash trumpet vivid ankle gun left crane ocean glass
then clap chalk grass display image able skate six bicycle quote faculty	hero duck chat ask garment mistake modify noble odor brown bounce whale
bacon repeat tonight turn loop fat sweet glow ball cruise speak prosper	apple forward slim mass tell town truck pilot huge armor assume jaguar
occur utility table cargo sorry wrap ritual palm desk toilet guide frozen	replace village lift paper tobacco rib pluck taxi cable payment law marriage
sausage cram runway chunk advance critic junk barrel joke happy frost pretty	lottery course whisper unusual piece orchard stuff people now random castle cave
recipe country floor margin panic shiver copy fancy logic entire panda pen	exact hobby ozone lemon awesome join congress supply reflect kitten nurse rack
swing inhale across hockey cheese ski cupboard security infant object surprise illegal	future bachelor neutral fly degree bus biology sort between window ghost enough
input song worth any praise lion cart dose foil universe gym icon	weather double denial describe trust achieve wrong story math asthma august warrior
assist rotate work custom system give atom federal sketch delay kingdom develop	rice canoe fame behave sign shift carpet kiss stand number burger clutch
filter refuse cash divorce stamp easy lucky depth cash decade note shoe	