The Benefits of Farm Programs: Incidence, Shifting, and Dissipation

MASON GAFFNEY

The Proximate Incidence of Gains

The proximate beneficiary of most farm programs is the landowner per se. Farmers who are not landowners, like the migrant harvesters who get down to 25 cents an hour in some places, do not gain, but suffer from lower demand for their services. Landowners who are not farmers, such as the matinee idols, senators, industrial executives and country bankers who sink their spare change in rural real estate, benefit hugely. In the short run, some tenants with long leases, or renewable ones under custom-bound crop shares, may gain a good deal. But these tenants really have a species of equity in land, and it hardly rises above the dignity of a quibble to cite them to refute what is otherwise too obvious for serious question.¹

Agricultural economists are becoming increasingly vocal on this subject, which, as farmland values continue to soar in defiance of falling "farm" income, is increasingly apparent. The work inspired by Walter Chryst is outstanding.

His findings really should not surprise us. The surprise is why it took the profession so long to catch up with Ricardo. In analyzing the corn laws—the farm price supports of his day—he made the same point, and on the side enunciated the law of rent and founded classical economics.

Ricardo must be qualified, some say completely rejected. The increase of rent in one industry is limited because in the long run we can increase the land supply. But we do so only at progressively higher cost. That is why the low-cost lands yield rent—which, after all, is about what Ricardo said.

Others point out that, if landlords gain from higher prices, they also are

¹ A few programs may give quotas to tenants rather than landowners. Such a quota, if permanent, is a new kind of property which would stand to capture the benefits of farm programs.

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the ones who have to withdraw a resource from production. True enough—but they get paid for it. Here is where the farm landowner has it over the members of privately financed cartels. The oil man idles his well at his own expense. The farm landowner gets paid for idling land, and he often has the choice of banking land or not, as his personal circumstances dictate. No wonder the other cartels complain—they should be jealous.

It is precisely the fact that land is selected as the input to be idled that makes the “farm” programs really landowners’ programs. If we idled labor, labor would become artificially scarce. Likewise, if we sought to restrict output by limiting the input of barns, haybalers, or peach trees, we would make them scarce and put them in position to capture the benefits of price supports and technical progress. If we idled some of all inputs in farm industry we might properly call it a “farm program.” But we single out one input, land. One result, as everyone knows, has been to weaken production control so much that one is tempted to wonder if that ever was the prime objective. The greater effect has been to change the relative bargaining power of different inputs inside agriculture vis-a-vis one another, and shift the terms of trade to favor land.

As among landowners, the programs also have a systematic bias in favor of larger ones. Larger landowners can spare marginal acres more easily than can smaller ones. Their factor-mix is already lean on labor and machines relative to land—we usually perceive that as lower costs per acre. Smaller farmers, below optimum acreage, are by definition in the stage of increasing returns to land, with marginal value greater than average. Those programs that cut back everyone by a fixed percentage of his land are therefore harder on smaller landowners, whose marginal acres mean more to them.

The commodities enjoying strongest support are on the whole land-using: cash grain, wheat, rice, and cotton are prime examples. The littler fellows who feed the grain to fatten hogs and cattle are not so well treated.

Now at the same time that we are thus manipulating factor proportions and terms of interfactor bargaining, another set of farm programs seems calculated to inure to the benefit of farm landowners in another way. These are programs of public works that bring to land water, or cheap power, or flood control, or improved access, or what have you. Here I am using “farm program” broadly—these are not operations of the CCC. They are, however, very much a part of the total bundle for agriculture secured in the political process—the great American system of public works for private profit. They are sponsored by organized farm groups, and it is this larger picture we here are concerned with.

While reclamation is the most conspicuous of the expansive genus of “farm programs” it is not, I think, the most pervasive. That distinction belongs to the way we handle the layout and financing of distributive networks generally—that is, our utility and transportation lines.
Most distributive networks consist of a rich, densely peopled center, and grade off toward the fringes into marginal territory that barely repays the cost of service, and submarginal territory that is carried by the surplus-yielding center: perhaps promotionally, looking to a better future; but often unwillingly, by force of state law. It is almost universal practice that charges throughout this network are either uniform—the postage-stamp pricing principle—or insufficiently differentiated to reflect differential costs. The charges may be rates of private utilities or carriers, or taxes for public roads. Setting uniform rates with differential costs is a form of price discrimination that favors the outlanders—usually farmers.

There is also less subtle price discrimination. In multipurpose projects, by whatever agency, farm landowners usually get power or water at much lower rates than city consumers. In federal reclamation projects, which do ask farms to help bear some costs, the irrigation component gets interest-free money. Common carriers' freight-rate structures generally give lower rates to bulk cargo, and farm landowners gain preference from that because farm products generally fall in the bulky low-rate classes. Farm trucking is exempt from I.C.C. minimum rate regulation.

Then there are the ACP programs which help the farm landowner build up the value of his property: establishing cover, liming, controlling erosion by tillage, strip cropping, and contouring. There are water conservation works—some doubling as farm swimming pools—built with the help of SCS and other agencies.

We also try to spread credit around rural areas at lower interest rates than would obtain in the absence of FLB, PCA, FHA, etc. Short and intermediate credit, used for production, tends to increase the annual value of land. Long-term credit, used to buy land itself, tends to lower capitalization rates and increase the land value derived from any level of annual values.

Some would place AES research at the top of any list of farm programs. Research might seem to be an objective activity, pushing back frontiers of knowledge, but is it? When did you last hear anyone frame a research project to help labor get by with less land? Are we not rather oriented to the landowner, who wants to "cut cost" by using less labor? If we ever teach labor to cut costs by dispensing with land, it is incidental to teaching landowners to raise yields per acre. Landowners are the effective client group to whom the AES's address themselves.

I will not labor the income tax advantages of "farmers." But it is interesting how the tax cards are stacked for the larger landowners. The breeders, whose ranches on the average not only outspread but outvalue other farm firms, and whose taxable income is largely land rent, get capital gains on sales of breeding stock. The feeders pay on ordinary income.
Last, we should mention agriculture's peculiar institution, the *bracero*. Who would ever have the effrontery to tell us that cheap contract Mexican labor was imported for any purpose but to increase the economic rent of farm land at the expense of labor's share? Exemption of native farm labor from minimum wage laws and social security would seem to have a like purpose and outcome.

Having taken all the above steps to raise land value, we cap the performance by paying the landowner for the privilege of holding idle some of his land we have enhanced, so we may pay him more for the produce of his other lands and lower the bargaining power of his labor and other hired inputs. It is little wonder, then, that some people feel the "farm" programs are not that at all, but landowners' programs.

**The Shifting of Benefits**

We cannot rest, however, with the simple conclusion above. Piecemeal analysis of each program shows the systematic bias for landowners, but beware the fallacy of composition. Critics of the landowner-conspiracy approach have long pointed out that new lands opened up by public works, etc., compete with old lands for customers and men and supplies. Higher yields from landowner-oriented research tend to flood markets and lower prices.

The obvious power of landowners over individual decisions may lead us to overestimate their aggregate power, and lead them to their own undoing. Landowners are organized well, but not perfectly. They dispute the division of the spoils, and each state has two senators wherewith to claim its share. The logrolling process therefore becomes the basic mechanism for allocating quotas and other benefits among the senators' clients.

Logrolling is a process whereby we generally get more military bases and river and harbor improvements than we need. Is it not to be expected, by analogy, that interstate rivalry for production rights would lead us to grant more than a monolithic and calculating monopolist would allow? It is the nature of the political process to give away more than there is. It is the nature of cartels to stimulate excess capacity. Here we have a mixture of both.

Some analysts have alleged that lower costs of production will be passed on to consumers. But prices are determined by supply and demand. If landowners could control aggregate supply they could capture and keep all the benefits of lower production costs. Whether benefits are shifted depends on what happens to aggregate supply.

In a very few programs supply is effectively controlled. Tobacco is the outstanding case. Most other programs suffer from serious leakage. Farm commodity groups face the classical problem of all cartels, the price-umbrella syndrome. Organized owners of superior resources cut back output
to maintain price, and, under this "umbrella," outsiders expand output and find loopholes to invade the sheltered market. The cartel expands to control the interlopers and new ones appear, until a final dissolution which leaves a legacy of excess capacity, much of it irreversible. Economic history is littered with the corpses of cartels thus destroyed by their own machinations.

The farm-commodity cartels are rather more vulnerable to overexpansion because their Board of Directors is the Congress of the United States, which includes the voices of 50 major and countless minor jurisdictions, plus the increasingly restive consumers. So politically, the stage is set for expansion. Economically, there is hardly a state within which several commodities cannot be produced at support prices. The long-run supply elasticity of farm products is high, within the relevant range. Let us enumerate several reasons why.

1. There is ample marginal land to bring in, wherever politics allows it. In a few cases, like tobacco, land as such has almost ceased to be a meaningful constraint on output—only the right to use it has value. In some contexts we may properly speak of land as fixed in supply—in tax matters, the supply in one taxing jurisdiction is fixed. But in commodity matters, land is versatile. Since "farm" programs are specific commodity programs, all land used for other commodities may be transferred over. In the Tulare Basin counties, for example, there are thousands of acres in alfalfa and pasture, using four or five feet of water per year, just panting for the signal to shift over to cotton. In the nation there are millions of acres of cropland in pasture.

In the aggregate, the supply of farmland is of course less elastic, but yet quite responsive in the long run to high prices and advancing knowledge and technique. The quiet resurrection of the dust bowl through adaptation of culture and species to local conditions is one of the monuments of our times. The conversion of badly drained hardpan Putnam soils of central Missouri to first-class cropland required mainly better traction and cheaper lime and nitrogen. Alkali "wasteland" around Raisin City, California, is now growing cotton and grapes, thanks to gypsum and lower water tables. Deep-well turbine pumps and cheap rural power have reopened many desert lands to settlement. In all states, expansion and improvement of the state and local networks of rural roads and utilities has brought immense new land supplies into contact with the market.

2. Political-economic power attaches to many marginal lands. The owners have the muscle to claim that combination of public works and production rights that rations out shares in the American way of life. Beveridge's "Free Coinage of Western Senators" is only one example—its effect on the westward movement of farm production is not hard to trace.

Some marginal lands, especially hardscrabble hill lands, attract the po-
BENEFITS OF FARM PROGRAMS

litrally inert. Other lands, presently submarginal but potentially superior, gravitate to a very different kind of owner. These lands fall to "strong hands," to those who can afford to pay a present price for a remote future chance of great gain, and who know how to being political pressure to assure the gains. The west side of the San Joaquin Valley, and the Mississippi Delta, are cases in point. The strong hands provide political leadership and money. Many weaker hands provide votes. Together they keep bringing new lands into production.

3. "Marginal" land often produces high yields per acre. "Marginal" land evokes the image of low yields, frequent drought and crop failure, and the like, and to be sure that is one side of it. But land may be marginal because of high costs rather than low yields. It may be separated from its market by high transportation costs. It may require heavy capital outlays for water supply or drainage. It may need heavy doses of labor or fertilizer, or heavy farm investment in trees, stock, or buildings. And then it may outyield superior lands by many fold, even though its net rent after costs is close to nothing.

The marginality of lands should not be described or measured in terms of yields, nor yet in terms alone of net rents per acre. To foresee the effects of price changes, we need to know the ratio of nonland costs to gross revenues. The difference of those two is net rent; their ratio is an important supplemental datum which I will christen the "intensity quotient" (henceforth "i.q."). Marginal land of "high i.q." answers to what some writers have described as land of "high capacity and low efficiency." My excuse for new terminology is expository—emphasizing the ratio helps bring out important leverage effects.

The net rent of land of high i.q. is highly leveraged. If i.q. = .95, a 5-percent rise of price means a 100-percent rise in net rent. If i.q. = 1.05, the land is submarginal but crosses the threshold of use when price rises, or costs fall, by more than 5 percent. And when such land enters the game, it throws on the market outputs that answer not to its low net rent, but to its high gross yields. It is the vehicle, if you will, by which large numbers of nonland inputs enter the market on a minimum base of raw land value.

The prototype of these marginal lands of high i.q. are irrigated lands in the arid states. They are far from market, they require artificial water supply, and, in some farm enterprises, they absorb large inputs of labor and private capital per acre. They could flood the Chicago and New York markets with potatoes and apples and vegetables and other western specialties without beginning to return to their owners a net rent at all commensurate with their share of the market. Most of the value is added along the way by nonland inputs and nonfarm inputs.

The arid states are the type, but not the whole genus by any means.
There are also marginal lands in the East and Midwest and South. Land may be remote not just because it is at the end of continental transportation lines: it may be beyond the local networks. And within the farm, it may be remote from the center of storage and operations. Or it may require unusually heavy inputs for draining or fertilizing or stabilizing. The loose economy of land which has characterized our entire national experience has left a latent reserve of bypassed acres in all regions. Much of the marginal land is high i.q., with high gross yield per acre.

In analyzing aggregate national and world supply, the farm-to-market transportation input should certainly be counted heavily as a nonland (or nonfarmland) input that leverages the net rents of lands at the end of long hauls. It may be just an accident of geography, but it is yet a fact that our greatest national reservoir of good soils fans out west of the Ozarks along the tier of prairie states, speciously central yet increasingly remote from major populations on the two coasts. These are high-yielding lands, too, and a small percentage price rise can convert many of them to feed grains, with overwhelming results. Perhaps we should describe much of this as transfer of land from pasture to plow, rather than extension of the margin, but the effect on output is much the same whatever we call it.

Here we should note the differential importance of price stability to the usability of high i.q. lands. The higher the leverage on net rent, the greater is the value of price stability to a landowner, because the greater is the percentage reduction in variation of his net income. One aim of price support programs is, of course, stability. To the extent that they succeed, they do more for high i.q. land than for low. If we include transportation among our nonland inputs, we find high leverage lands farther from markets. Since the area of a circle increases with the square of its radius, and since the great midcontinental Golconda of prairie soils is far from markets, price stability acts strongly to bring on new lands of high gross yields.

4. There is also great supply elasticity from superior lands, through elevation of their i.q.'s. This is, indeed, the most commonly cited cause for the impotence of acreage restriction as a supply control. We pour more nonland inputs onto limited acres and discover that a slight rise of price or drop of costs can lead to great intensification. Lands which Hammar thought had "high efficiency but low capacity" now, it seems, also have high capacity (as he had originally suspected when he first wrote of their surprisingly low man-land ratios.) The latent capacity simply was not fully used.

Here, again, our concept of i.q. provides an easy explanation. Suppose—and this is realistic—a farmer has a choice between two different intensities of land use, A and B. A yields slightly less net rent per acre, but at a low i.q. of .50. Shifting to B means higher net rent, but at the cost of a
much higher i.q. of .85. He might very well prefer A. High i.q.'s are uncomfortable and risky: a slight fall of price and one is wiped out; a strike or labor shortage can be disastrous; bad weather is murder. Or the farmer may have taken too seriously the bad advice of certain public servants who advise us to maximize benefit-cost ratios on public works—that being comparable to minimizing the i.q. The low-i.q. enterprise—barley or onions, for example—yields much less than the high, but it yields a safe, steady return each year, without acute management problems and with plenty of slack to cover mistakes and contingencies.

Now suppose we support prices 15 percent above their former level. The .85-i.q. enterprise now nets twice as much as formerly, the .50-i.q. enterprise only 1.3 times as much. That tends to overcome the landowner's natural aversion to risk and worry and entices him to lay out more for nonland inputs. Leverage! How little we have appreciated its latent power to multiply yields. Give the farmer a place to stand, and he can lift the world.

A recent Iowa study of corn yields concludes that Iowa alone could supply the nation's output of feed grain if only all farmers improved their practices to the standard currently observed by the most advanced managers. It is not likely the other states will soon give her the chance to prove it, but it gives a notion what giants in the earth we stir when we pry open the gap between prices and costs.

In sum, the supply of farm land in the long run may be regarded as quite elastic to price, and the supply of farm products even more so through substitution of nonland for land inputs, or intensification. It may be, then, that the complex of farm programs is playing the same kind of ironic trick on landowners as the Homestead Act we centennialized three summers ago, and its associated subsidies to hasten rail penetration of the heartland. The railroads, you recall, each worked to raise land values near the routes, but in the aggregate brought in so much land as virtually to destroy its unit value by the 1880's and 1890's, bringing on Populism and Bryan. Is that what the omens now portend?

**The Dissipation of Net Benefits**

The short run

If landowners are ruining themselves by too much success, that is not yet apparent in the value of farmland, which keeps rising in the face of falling farm income. How do we account for this perverse behavior? The reasons usually cited are important: a rising landowner's share of farm income, mineral rights, urban expansion, farm enlargement; etc. Of all the reasons, however, I would call your attention most closely to the long lag of production response behind enhanced production capability.

Many farm programs, of public works and production research, en-
hance the capacity of land to yield income. Land values respond to that higher capacity immediately; actual production comes along much more slowly. A handful of alert innovators seize on new possibilities and convert their land use to them. In the process they often buy land, at values reflecting in part the income from higher use. Since only 2–3 percent of farms, and a smaller percentage of land, turn over each year, these few purchases by aggressive innovators loom large in the sales figures which we then blow up to estimate the aggregate value of all land.

In practice the supersession of land uses is a matter of generations, as Ray Teele, David Weeks and Charles West, Roy Huffman, and other water economists have abundantly demonstrated. In the transition, land has a value based on expectation of higher use, but markets no products commensurate with the value. Since the transition is to higher I.Q., as a rule, land must ultimately market products more than commensurate with its new value to warrant the value. Just who will buy those products, and at what prices, is a problem we defer. Meantime, we expand the area of land whose value is premised on intensive use. We increase values of those lands without paying the penalty of higher output and lower price.

Thus, if retribution is to come, it is deferred. Meantime, the gratifications of the system are immediate. Higher land values are enjoyed all around. The mere fact that owners do not take quick advantage of them does not mean they do not appreciate them. The individual can always sell, or mortgage, and most of us like to have options that we can exercise at our leisure.

A system of instant pleasure and deferred pain lends itself nicely to the demands of the American political process. Short-run electoral survival is paramount; long-run problems may fall on one's successors. Little wonder, then, that we have had so much trouble avoiding contradictions in our farm policy.

The long run

In the long run it seems inevitable that the euphoria induced by the long lag of supply response should give way before the weight of massive new capacity.

In the short run, implicit rent is a lax taskmaster. In a period of rising land values it is especially so because the annual increment to value is a species of income from land which helps cover carrying costs. Even with steady land values, implicit rent merely represents an opportunity, a carrot without a stick. It is an option open primarily to those who need it least—those affluent enough to own land—and who are least likely to exercise the option to its utmost.

But over time more of the implicit rent becomes explicit. Fixed charges build up. Land changes hands at high values, and is mortgaged. Property
taxes and land assessments respond to the higher base. And of course each year a few more owners jump at the carrot, regardless of the stick. The demonstration effect of progressive innovators is contagious. Older capital depreciates, and its replacement affords the occasion to intensify. Older farmers retire. The collateral of high land values lures more capital into agriculture. And high asking prices for land make intensification an ever more attractive alternative to farm expansion.

The result could be a dramatic price collapse, one which would be worsened by liquidation of farm capital and a panic rush to cash in on fugitive opportunities. But we have forestalled much of that by our program of price supports. If supports cannot hold prices forever in the face of surpluses, they can at least preside over an orderly retreat to ever lower percentages of parity. Thus farm landowners never have to take in one blow the full force of the debacle of the cycle of overexpansion.

The trouble with that policy is that supply curves are irreversible. New techniques discovered and disseminated under the stimulus of high price are not forgotten when prices drop. New regions are not abandoned, new roads not rolled back up, new dams not unbuilt, new quotas and congressional districts not relinquished. Slow as positive supply response may be, negative response to lower prices is much slower, and in some conditions even perverse. So when we ride down the supply curve by lowering support prices, it is not the same curve we rode up, but much steeper. The new equilibrium price is lower than what would have obtained had we never supported prices. That is the landowners' deferred retribution.

The process has some of the marks of a long boom-and-bust cycle like that of irrigation from 1918-1940. But modern farm policy has made it more of a continuous process. We know that high prices stimulate unneeded new capacity. But the new market price at the bottom of the steep downwards supply curve generates acute vertigo, and a desperate resolve to avoid the perils of full competition.

So, in our "orderly retreat" from insupportable prices, we drop them a peg or two but continue to support them above a free market equilibrium, which falls inexorably lower by virtue of the fact that we are holding prices above it. A pretty dilemma, indeed! We fear to unbottle the productive genies we have awakened by price supports; but the same high prices which we fear they would undercut keep awakening more genies than we can control.

The result is surpluses and excess capacity—at or below price levels that would have prevailed had there been no farm programs. And we continue to add to the irreversible excess capacity: not as fast as we would at 100 percent of parity, but faster than we would at the new equilibrium price.

The greatest beneficiaries are the owners of marginal land of high i.q. brought into the market by this or that subsidy. The losers include the
owners of superior land who ultimately have to share what might have been their market with others whose share of political power exceeded their share of natural land value. Consumers may ultimately benefit by lower prices, although that depends on the fate of production controls and diversion programs, and if consumers do finally gain they will have earned it. Taxpayers are big losers, and we all lose as balked consumers of the various useful goods and services that might be produced with the nonland inputs poured into needless public works and development of high-i.q. land. (The argument that these inputs would be wasted anyway hardly warrants a reply.) Recreationists are losers as agriculture invades and reclaims more and more wild land it never needed.

The distribution of gain and loss is less important than the fact that the aggregate loss exceeds the gain by a wide margin. The ultimate end toward which the programs are drifting is dissipation of the benefits in sheer waste. The waste consists basically in locking up the latent productive power of superior land, duplicating it at great private and social cost on the desert, in the swamps, and in the backwoods; and then locking up part of the duplicate land as well. We deny ourselves full advantage of our landed heritage, and even of the capital we substitute for it. We produce at real human cost what nature wants to yield freely above our efforts.

Location and regional specialization are badly distorted. Many quotas are frozen to their farms or counties of origin, blocking migration to areas that later became more economical. But the overall pattern is not frozen. On the contrary, the greater problem is one of uneconomical migration. Land best suited for corn is diverted to hay or small grain, while corn and its many substitutes invade the wheatlands, and wheat tears the cover off erosive grasslands and moves east to diverted corn land. Land near cities goes into low uses while remote land goes into horticulture, magnifying the transportation bill and the farm-market spread. We spread thin the economic rent that would under an economic regimen focus on better soils and locations. We can hardly blame the trucks and railroads then if they take a larger slice of the food budget, or wonder why storage and handling costs mount so high.

We buy stable prices at the cost of unstable output. We create a class of "in-and-out" land, and labor, and capital, which bear the brunt of supply control. Land poised speculatively on the fringes of existing programs is not well developed in its actual uses and cannot support a stable rural society.

In sum, we are left with heavy costs and few benefits. As high as farm real estate values have soared, they still hardly represent more than a capitalization of the USDA budget, not to mention some $2 billion charged to "foreign aid" that really belongs in the agriculture budget, plus public
works charged to Interior and Army, and other billions in the other programs mentioned earlier. The benefits are dissipated in the terrible contradictions of the programs.

In coming to this unhappy state, land plays the role of the Lorelei. The siren song that leads the sailors on the shoals is the lure of unearned increment. Land is ideally cast for the Lorelei role. It is immobile between congressional districts and so captures net benefits to districts brought home by their congressmen: that makes it the coin for paying off political retainers. It is the ideal medium for promising more than can be delivered, because the lag is so long before most landowners capitalize on new opportunities.

And so our surplus problem traces back to the implicit national policy of high land values for everyone. To straighten out our farm economy, we need some fundamental reappraisal of the prevailing system of cold storage to enhance some land values and public works to enhance others. Artificial scarcity plus artificial abundance can add up to nothing but genuine waste.

Discussion: The Benefits of Farm Programs: Incidence, Shifting, and Dissipation

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Gaffney’s is not a conventional paper and does not yield readily to conventional analysis. It is cleverly written; some sentences are as graphic as any I have ever read. The paper provides useful insights, as illustrated by his treatment of utility and transportation lines. This pinpoints a weakness in land economics research on the agricultural infrastructure. There are numerous statements of a provocative nature in the paper. When taken in total and when studied carefully, the paper is a confusing one. His broad-brush treatment of the politics of government programs that in any way influence agricultural output is too general to add significantly to our knowledge. His economic analysis of these programs is not carefully developed. The question to which he addresses himself is basically an empirical one, yet he presents no empirical data nor suggests any empirical tests. It is questionable that these matters can be disposed of so neatly by attributing so much to a “landowner-conspiracy.”

Space prevents a detailed examination of Gaffney’s paper. Some of the

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